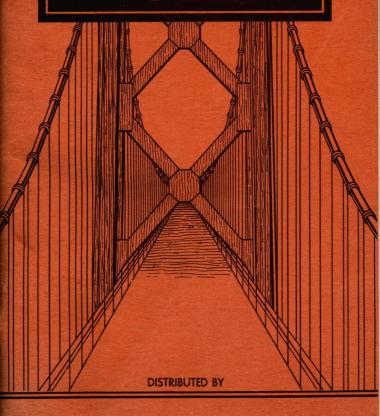


# THORSEN

TOOLS



SOCKET SIZE TABLE						
SOCKET OPENING INCHES	S. A. E. NUTS AND CAP SCREWS	U. S. S. CAP SCREWS	U. S. S. NUTS AND BOLTS	AMERICAN STANDARD NUT-C.SCR.		
3/16				No. 3		
1/4				4		
5/16		1/8	1/8	5,6		
11/32				8		
3/8		3/16		10		
13/32				11		
7/16	1/4	1/4	1/4	12		
1/2	5/16	5/16	1/4	5/16		
9/16	3/8	3/8		5/16,3/8		
19/32			5/16			
5/8	7/16	7/16		3/8, 7/16		
11/16			3/8			
3/4	1/2	1/2		7/16,1/2		
25/32			7/16			
13/16		9/16		1/2,9/16		
7/8	9/16	5/8	1/2	9/16, 5/8		
15/16	5/8			5/8		
31/32			9/16			
1"	11/16	3/4		3/4		
1-1/16	3/4		5/8			
1-1/8		7/8		3/4, 7/8		
1-1/4	7/8	1"	3/4			
1-3/8		1-1/8				
1-7/16	1"		7/8			
1-1/2		1-1/4		1",1-1/8		
1-5/8	1-1/8	1-3/8	1"			
1-13/16	1-1/4		1-1/8			
1-7/8				1-1/4		
2"	1-3/8		1-1/4			
2-1/8						
2-3/16	1-1/2		1-3/8			
2-1/4				1-1/2		
2-3/8			1-1/2			
2-9/16			1-5/8			
2-5/8				1-3/4		
2-3/4			1-3/4			
2-15/16			1-7/8			
3-1/8			2"			
1-5/16	3-1/2			7/8, 1"		
3-1/2						







CATALOG No. 38-39

PRESENTING

THE WORLD'S FINEST

MECHANICS'

HAND TOOLS AND

EQUIPMENT

## "TECHNIHEAT"

PROCESSED

## TOOLS

"Techniheat" is a newly developed process applied to the manufacturing of tools

Tools made by this process are superior in

STRENGTH - DURABILITY - SAFETY

General Sales Office

# Thorsen Tool Company 1475 Bush Street » San Francisco

Phone ORdway 3330

LOS ANGELES SALES THROUGH:
THORSEN TOOL COMPANY OF SOUTHERN CALIF.
1352 SO. FLOWER STREET

1352 So. FLOWER STREET
LOS ANGELES, CALIFORNIA.
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PROSPECT 1923
OAKLAND WAREHOUSE AND STORE:

392 24TH STREET HOLLIDAY 6152

MANUFACTURING PLANT LOCATED AT 5321 HORTON STREET EMERYVILLE, CALIF.

### MINIATURE SOCKET SET

For Automotive, Aviation and Electrical Work 14" Sq. Drive.



No. TH31/2 MINIATURE SOCKET SET ALL CLASSES OF MECHANICS FIND THIS NEWLY DEVELOPED SOCKET SET NECESSARY FOR WORK ON ALL THE SMALL NUTS AND BOLTS USED IN THE ASSEMBLY AND INSTALLATION OF RADIOS, CARB-URETORS, INSTRUMENTS, GENERATORS AND MAGNET OS. ALL SOCKETS, EXTENSIONS AND LINKJOINT HANDLE ARE HOT FORGED AND TECHNIHEAT PROC ESSED. ALL PARTS THIN AND STRONG.

	PARTS IN ABOVE SET 4 SQ CON
No.	DESCRIPTION PRICE
50M	2" EXTENSION \$0.40
12MS	5" LINKJOINT HANDLE 1.25
16M	SPINTITE HANDLE SHORT SHANK 50
	SOCKETS IN ABOVE SET

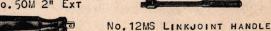
No	OPENING	PRICE	No	OPENING	PRICE
6 M	3/16"	\$0.30	11 M	11/32"	\$0.30
7 M	7/32			3/8	. 30
8 M	1/4	.30	13 M	13/32	.30
9 M	9/32	. 30	14 M	7/16	.30
10 M	5/16	.30		COLUMN ENG	

#### MINIATURE SOCKET SETS

3 CONTAINS 9 SOCKETS, HEX AND TWELVE POINT, LINKJOINT HANDLE, NO. 16M SPINTITE HANDLE, NO. 50M EXTENSION WITHOUT METAL BOX......\$4.85
ABOVE SET IN METAL BOX..........5.45 31%

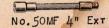
216	Moore of the motive bons, it is	2.40
	EXTRA PARTS AVAILABLE	
No.	DESCRIPTION	PRICE
17M	SPINTITE HANDLE, LONG SHANK	0.60
18M	FLEXIBLE SHANK SPINTITE HNDL	1.25
50M	4" FLEXIBLE EXTENSION ONLY	1.05
	EXTRA 8 POINT SOCKETS	
8MS		.30
10M	5 5/16"sq. (8 PT) SOCKET	.30

No. 50M 2" ExT



No. 16M SPINTITE





NO. 17M SPINTITE HNDL.



No. 18M SPINTITE HNDL.

# THORSEN TOOLS THORSEN JUNIOR SOCKET SET



No. TH-12 Junior Techniheat Socket Set

THORSEN "TECHNIHEAT" PROCESSED JUNIOR SOC-KETS REPRESENT THE GREATEST POSSIBLE VALUE IN QUALITY, DESIGN AND SERVICEABILITY. HANDLES, EXTENSIONS AND PARTS ARE EXTRA STRONG BUT LIGHT IN WEICHT. SOCKET WALLS ARE THIN AND RESIST BREAKAGE UNDER THE MOST SEVERE SERVICE CONDITIONS.

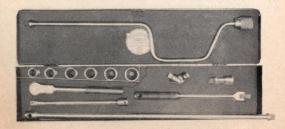
USE THESE SUPER STRENGTH TOOLS ON ALL HARD TO GET AT PLACES, OR WHERE CLEARANCES ARE LIMITED. SAVE ENERGY BY LIGHT WEIGHT TOOLS-80% OF ALL NUTS AND BOLTS AND CAP SCREWS ON THE AVERAGE MOTOR CAN BE SERVICED BY THESE JUNIOR TECHNIHEAT SOCKET SETS.

THESE SETS ARE PRACTICAL -- WELL BALANCED ASSORTMENTS FOR AUTOMOTIVE, AVIATION, ELECTRICAL, REFRIGERATION, ETC., SERVICE WORK.

THE TH-12 SET CONTAINS THE FOLLOWING PARTS: 12J, 33J, 61J, 62J, 50J, 53J, 59J, 77J, 416J, 418J, 420J, SOCKETS, NOS: 312, 314, 316, 318, 320, 321, 322, 324.

No. TH-12 SET COMPLETE AS ABOVE \$19.70 No. TH-12½ SET COMPLETE, STEEL CASE 20.45

#### THORSEN JUNIOR SOCKET SET



#### No. TH-14 Junior Techniheat Socket Set

THIS SET HAS ALL NECESSARY PARTS FOR COM-PLETE SERVICE EXCEPT THE UNIVERSAL JOINT SOCKETS.

No. TH-14 SET CONTAINS THE FOLLOWING PARTS 12J, 62J, 50J, 53J, 59J, 77J, 33J, Sockets Nos: 314, 316, 318, 320, 322, 324.

No. TH-14 SET COMPLETE AS ABOVE \$12.55 No. TH-14½ SET COMPLETE, STEEL CASE 13.30

THORSEN STANDARD SOCKET SET 1/2" Square Connection



#### No. TH-13 Techniheat Set of Sockets

THE No. TH-13 SET IS DESIGNED TO COVER ALL POPULAR SIZES OF THE MOST USED 1/2" SQUARE CONNECTION STANDARD SOCKETS.

CONTAINS THE FOLLOWING SOCKETS: Nos. 514, 516, 518, 519, 520, 522, 524, 525, 526, 528, 530, 532, and 534.

No. TH-13 SET AS ABOVE No. TH-13% SET COMPLETE, STEEL CASE

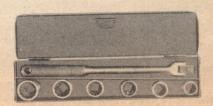


#### No. TH-19 Techniheat Set of Sockets

THE NO. TH-19 SET IS MADE UP OF 19 SIZES OF STANDARD, 1/2" SQUARE CONNECTION SOCKETS PRACTICALLY EVERY AVAILABLE SIZE. CONTAIN ED IN A WELL DESIGNED COMPACT STEEL CASE-CONVENIENT AND EASILY CARRIED. CONTAINS THE FOLLOWING SOCKETS: Nos. 512, 514, 516, 518, 519, 520, 521, 522, 524, 525, 526, 528, 530, 531, 532, 534, 536, 538, 540.

No. TH-19 SET COMPLETE AS ABOVE No. TH-19% SET COMPLETE, STEEL CASE

#### THORSEN JUNIOR SOCKET SET 3/8" Square Connection

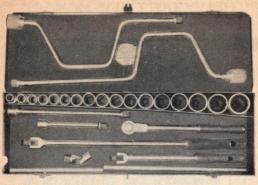


### No. TH-7 Junior Techniheat Socket Set

THE NO. TH-7 SET CONTAINS THE No. 12J LINK JOINT HANDLE AND SIX SOCKETS: Nos., 314, 316, 318, 320, 322 AND 324.

TH-7 SET, COMPLETE AS ABOVE No. TH-7% SET, COMPLETE STEEL CASE 4.70 No.



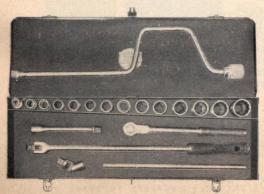


No. TH-11 Super Techniheat Socket Set

THE NO. TH-11 SET IS MADE UP OF PRACTIC-ALLY ALL PARTS AND SOCKETS THAT THE PROF-ESSIONAL MECHANIC NEEDS ON ADVANCED SER-VICE WORK. ALL PARTS ARE OF THE VERY FINEST ALLOY STEEL, "TECHNIHEAT" PROCESSED POLISHED AND LACQUERED.

CONTAINS THE FOLLOWING PARTS: Nos. 61, 62, 53, 57, 33, 77, 16 AND 14. SOCKETS, (17) Nos. 514, 516, 518, 519, 520, 521, 522, 524, 525, 526, 528, 530, 532, 534, 536, 538 AND 540.

No. TH-11 SET COMPLETE AS ABOVE \$25.00
No. TH-11% SET COMPLETE, STEEL CASE 26.90



No. TH-9 Techniheat Socket Set

THE NO. TH-9 SET, WHILE A LITTE LESS COM-PLETE THAN THE NO. TH-11, IS ASSEMBLED SO ALL NECESSARY PARTS ARE INCLUDED TO PERMIT HANDLING SERVICE WORK WITH SPEED. SAME FINE QUALITY OF MATERIAL, TEMPER AND POLISH

CONTAINS THE FOLLOWING PARTS: Nos. 62, 55, 33, 77, 15. SOCKETS (14): Nos. 514, 516, 518, 519, 520, 521, 522, 524, 525, 526, 528, 530, 532 AND 534.

No. TH-9 COMPLETE AS ABOVE \$17.70
No. TH-9% SET, COMPLETE STEEL CASE 19.60

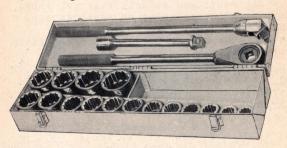
## THORSEN HEAVY DUTY SETS 3/4" sq. Con.



#### No. TH- 16 Heavy Duty Techniheat Socket Set

A VALUABLE ADDITION TO THE SERVICE SHOP. SET CONTAINS NINE OF THE MOST POPULAR SOC-KETS. ASSEMBLED TO SERVICE ALL LARGE NUTS COMMONLY ENCOUNTERED. THE NO. TH-16 CONTAINS FOLLOWING PARTS: No. 21HD HANDLE, SOCKETS: Nos. 1230, 1232, 1234, 1236, 1240, 1244, 1246, 1248 AND 1252.

SET COMPLETE AS ABOVE \$11.70 No. TH-16 No. TH-16% SET COMPLETE, STEEL CASE 13.00



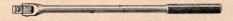
#### No. TH-5 Techniheat Heavy Duty Socket Set

THE MOST COMPLETE AND COMPACT HEAVY DUTY SOCKET SET. CONTAINS SIXTEEN SOCKETS. GIANT LINK JOINT HANDLE, EXTENSION AND RATCHET. EVERY PIECE BUILT FOR HARDEST SERVICE.

THE TH 5 SET CONTAINS FOLLOWING PARTS:
NOS. 18, 18X AND 79. SOCKETS, NOS: 1230,
1232, 1234, 1236, 1238, 1240, 1242, 1244,
1246, 1248, 1252, 1256, 1258, 1260, 1264, 1268.

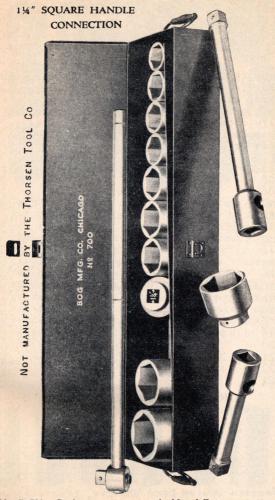
\$36.00 No. TH5 Tools ONLY \$36.00 No. TH5% SET COMPLETE IN STEEL BOX 38.65

#### THORSEN "LINKJOINT" HANDLE FOR HEAVY DUTY SET



THIS HANDLE IS FORGED FROM A SOLID BAR OF ESPECIALLY SELECTED ALLOY STEEL AND WILL RESIST TWISTING AND BENDING UNDER UNUSUAL-LY SEVERE STRESSES AND STRAINS. WELL BAL-ANCED -- LIGHT IN WEIGHT -- COMFORTABLE KNURLED GRIP.

## MAMMOTH SET No.B700



No. B-700 - Socket Set Complete in Metal Case. ... \$140.36

Individual Parts:				
No. B-734—36" Slide Bar "T"	\$ 8.90			
No. B-738—9" Extension (with turning hole)	7.20			
No. B-740—18" Extension (with turning hole)	10.00			
*No. B-732—Roller Clutch-type Ratchet, 36" Handle	46.80			
No. B-64 —Socket 2" opening				
No. B-68 —Socket 21/8" opening	3.50			
No. B-70 —Socket 23/6" opening.				
No. B-72 —Socket 21/4" opening.	4.30			
No. B-76 —Socket 23/8" opening				
No. B-80 —Socket $2\frac{1}{2}$ " opening				
No. B-82 —Socket 2% opening	8.70			
No. B-84 —Socket 25%" opening.	9.46			
No. B-88 —Socket 2¾" opening.				
No. B-94 —Socket 213/16" opening.	13.50			
No. B-100—Socket 3½8" opening.	16.40			
No. B-112—Socket $3\frac{1}{2}$ " opening.				
No. B-177—Metal box, 39" long, 8" wide, 5" deep	8.65			
(Approximate weight complete Set without Ratchet, 101 l				

\*Ratchet is not illustrated and is supplied as an extra part of the Set. Weight 19 pounds.

#### JUNIOR SOCKETS







3/8" sq. Con.

THORSEN JUNIOR SOCKETS ARE ALL HOT FORGED AND "TECHNIHEAT" PROCESSED TO INSURE ACCURACY, STRENGTH AND THIN SOCKET WALLS.

MADE OF THE FINEST ALLOY STEEL, SUPPLIED WITH SMOOTH FINE POLISH IN NATURAL STEEL, THOROUGHLY LACQUERED TO PREVENT RUST AND LOSS OF LUSTER.

No.	SOCKET	01	PEN	IING					F	RICE
308	1/4"								. \$	0.35
30888	1/4"	(	8	POI	NT	)				35
310	5/16"									.35
31055	5/16"	(	8	POI	NT	).				- 35
312	3/8"									.35
31255	3/8"									. 35
314	7/16"									. 35
31488	7/16"	(	8	POI	NT	).				.35
316	1/2"									.40
31688	1/2"	(	8	POI	NT	).				.40
316X	1/2"	1	HE	x).		•				.40
318	9/16"	'								.40
31855	9/16"	(	8	POI	NT	)				. 40
319	19/32"									.40
320	5/8"			: :						.45
321	21/32"			: :						.45
322	11/16"									:45
324	3/4"									.45
24	2/4"									.40

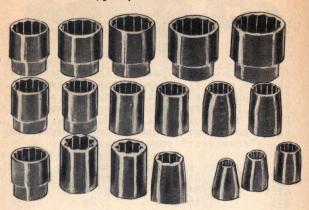
#### THORSEN JUNIOR DEEP SOCKETS.



THORSEN JUNIOR DEEP SOCKETS, LENGTH 2", ARE ESPECIALLY HANDY FOR BODY BOLIS, RUN-NING BOARD CHANNELS, FENDER SUPPORTS AND MANY OTHER INEXCESSIBLE PLACES WHERE THE ORDINARY SOCKET WILL NOT WORK SATISFACTORILY.

No.	SOCKET OPENING	PRICE
6140	7/16"	. \$0.50
61435	7/16" (8 POINT)	50
6161		55
616JS	1/2" (8 POINT)	: .55
618J		
618JS	9/16" (8 POINT)	60
6201	5/8"	60
620JS	5/8" (8 POINT)	60
622J	11/16"	65
622JS	11/16" 11/16"(8 POINT).	65
6241	3/4"	70
624JS	3/4" (8POINT)	70

THORSEN STANDARD SOCKETS
1/2" Square Connection



THORSEN SOCKETS ARE CAREFULLY ENGINEERED AND DESIGNED TO DELIVER PERFECT SERVICE. HOT FORGED THE "TECHNIHEAT" PROCESS PERMITS THE DEVELOPMENT OF A SOCKET WITHOUT BULK OR UNNECESSARY WEIGHT. THE WALLS ARE STRAIGHT AND THIN, ENABLING THE USER TO PLACE THEM IN VERY CLOSE PLACES. ALL SOCKETS SUPPLIED WITH SMOOTH FINE POLISH IN NATURAL STEEL FINISH. THE NEW QUALITY AND SUPERIORITY OF THORSEN SOCKETS GUARANTEES THE GREATEST PURCHASE VALUE. THE PROBLEM OF BROKEN SOCKETS HAS ALMOST ENTIRELY BEEN ELIMINATED.

No.	SOCKET OPENING	PRICE
512	3/8" (8 POINT)	\$0.45
51288	3/8" (8 POINT)	.45
51/1	7/16"	. 45
514ss 516 516ss	7/16" (8 POINT)	.45
516	1/2"	.45
51655	1/2" (8 POINT)	.45
518		.45
51855	9/16" (8 POINT)	. 45
510		.45
519 520	19/32"	:50
520SS	5/8" (8 POINT)	.50
521	24 /2211	.50
221	44/46	.50
522	11/10"	.50
52288	11/10" ( O POINT)	.50
524 524ss	3/4" ( 8 POINT)	• ))
52455	3/4" ( 8 POINT)	.55
525	25/32"	. 55
526		.55
526SS	13/16" (8 POINT)	.65
528	7/8"	.65
52888	7/8" (8 POINT)	.65
529	29/32"	.65
530	29/32"	.65
531 532"	31/32"	.70
532"	1"	.70
53255	1" (8 POINT)	.70
534	1-1/16"	.70
534 536	1-1/8"	.75
538	1-3/16"	.85
540	1-1/4"	.90
240		. 70

"SUPERSHORT" UNIVERSAL JOINT SOCKETS







THORSEN UNIVERSAL SOCKETS ARE EXTRA SHORT COUPLED. PERMITTING OPERATION IN VERY CLOSE QUARTERS. SPECIAL TEMPERED STEEL PINS. EXTRA THIN WALL SOCKETS, MADE OF CHROME VANADIUM STEEL, SCIENTIFICALLY TEMPERED AND HEAT TREATED UNDER THE THORSEN "TECHNIHEAT" PROCESS.

No.	SOCKET OPENING	CONN	PRICE
412	3/8"	1/2"	\$1.55
4120	3/8"	3/8"	1.55
414	7/16"	1/2"	1.55
4140	7/16"	3/8"	1.55
4140	1/2"	1/2" 3/8" 1/2"	1.55 5.55 1.55 1.65 1.65 1.65
4160	1/2"	3/8"	1.55
418	9/16"	1/2"	1.65
4180	9/16"	3/8"	1.65
420	5/8"	1/2"	1.65
4200	5/8"	3/8"	
420J 422	11/16"	1/2" 3/8" 1/2"	1.70
4221	11/16"	3/8"	1.70
424	3/4"	1/2"	1.75
4240	3/4"	1/2"	1.75
1-1-	AND THE REAL PROPERTY OF THE PARTY OF THE PA	THE RESERVE OF THE PARTY OF THE	

#### THORSEN SPECIAL UNIVERSAL SOCKETS

THORSEN EXTRA HEAVY DUTY UNIVERSAL SOC-KETS FOR USE TO TURN CYLINDER HEAD CAP SCREWS, MAY BE USED WITH ANY TYPE OF EX-TENSION. WE RECOMMEND CONSIDERATION OF THORSEN TEE HEAD #54 AND EXTENSIONS #60D AND #60E, ILLUSTRATED AND DESCRIBED ELSEWHERE.

No.	SOCKET OPENING	CONN.	PRICE
420H	5/8"	1/2"	\$1.75
422H	11/16"	1/2"	1.80
424H	3/4"	1/2"	1.85

#### THORSEN SPECIAL SOCKETS



THORSEN DRAG LINK SOCKETS, USED IN CON-NECTION WITH SOCKET HANDLES AND FITTINGS ARE VERY HANDY SPECIAL TOOLS AND MAY BE USED FOR ALL HEAVY SLOTTED SCREW TURNING WORK, AVAILABLE IN BOTH 1/2" AND 3/8" SQUARE CONNECTION,

No.	BLADE WIOTH	CONN.	PRICE
376	3/4"	3/8"	\$0.65
576	3/4" 15/16" 1-1/4"	1/2"	\$0.65 .65
577	1-1/4"	1/2"	.75
376 576 577 578	1-1/2"	3/8" 1/2" 1/2" 1/2"	.90

THORSEN SPECIAL SPARK PLUG SOCKETS



THORSEN SPARK PLUG SOCKETS MEET THE NECES-SITY OF EXTREMELY THIN SIDE WALLS, ABSOL-UTELY NECESSARY WHEN TAKING THE SPARK PLUGS OUT OF THE PRESENT DAY MOTORS. ALL SPARK PLUG SOCKETS ARE MADE OF SUPER QUAL-ITY ALLOY STEEL, "TECHNIHEAT" PROCESSED.

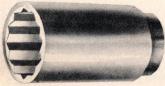
No.	SOCKET OPENING	CONN.	PRICE
618SP	9/16" (10 MM)	3/8"	\$0.60
626SP	13/16"	1/2"	.90
628SP	7/8"	1/2"	.90
629SP	29/32"	1/2"	.90
630SP	15/16"	1/2"	.95
632SP	1"	1/2"	1.00
636SP	1-1/8"	1/2"	1.15

#### THORSEN SPARK PLUG SOCKET SET



TH6 ALL ABOVE SIZES
NO CASE . . . \$6.40
TH6½ ALL ABOVE SIZES
METAL CASE \$7.05

#### THORSEN EXTRA DEEP SOCKETS



THORSEN EXTRA DEEP SOCKETS, LENGTH 3", ARE AVAILABLE IN ALL SOCKET SIZES AND MAY BE USED WHERE THERE IS A NECESSITY OF AN EXTRA DEEP SOCKET. SOCKET WALLS ARE STRAIGHT AND THIN AND HEAVIER THAN THE SPARK PLUG TYPE OF DEEP SOCKETS

OFARK IL	TOO TIPE OF DEEP SOURETS.	
No.	SOCKET OPENING	PRICE
614	7/16"	\$0.75
616	1/2"	.75
618	9/16"	.75
619	19/32"	.75
620	//00	.80
622	44/4	.80
624	0/1 =	
625	07/00-	.80
626	20.6/-	.80
628	5/0-	.90
630	7/8"	.90
	15/16"	.95
631	31/32"	1.00
632	1"	1.00
634	1- 1/16"	1.10
636	1- 1/8"	1.15
638	1- 3/16"	1.20
640	1- 1/4"	1.20



#### THORSEN "BLOCK" SOCKETS

1/2" Square Connection



THORSEN BLOCK SOCKETS MAY BE USED WITH STANDARD CONNECTORS AND HANDLES TO TURN NUTS SO CLOSE AND INACCESSIBLE THAT A SOCKET CAN NOT BE USED. ALL SOCKETS HOT FORGED, MILLED AND SUPPLIED IN 7 COMMONLY USED SIZES.

No.	SOCKET OPENING	PRICE
714	7/16"	\$0.80
716	1/2"	.80
718	9/16"	. 90
720	5/8"	. 90
722	11/16"	.90
724	3/4"	1.00
728	7/8"	1.10
160		

#### ADAPTORS TO CONNECT SOCKETS



THORSEN SOCKET ADAPTORS ARE MADE OF SPEC-IAL STEEL, "TECHNIHEAT" PROCESSED AND TEM-PERED TO RESIST THE EXTRA STRESS AND STRAIN THAT OCCURS WHEN CONNECTING DIFFER-ENT TYPES OF SOCKET SET PARTS TOGETHER.

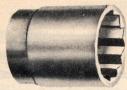
No.	PLUG	SOCKET	PRICE
94	3/8"	1/2"	\$0.60
95	3/8" 3/4"	5/8"	.80
95A	3/4"	1/2" 5/8" 1/2"	80
94 95 95 96 98 98B	3/4" 5/8"	3/4"	. 80
98	1/2" 1/2" 5/8"	3/8"	.60
98B	1/2"	5/8"	.60
98C	5/8"	1/2"	.60
980	1/2"	3/4"	.60
99	1/2" 7/8"	1/2" 3/4" 3/4"	.80



No.	PLUG	PLUG	PRICE
91	1/2"	5/8"	\$0.60
91A	1/2"	3/4"	.60
92	3/4"	5/8"	.80
97	1/2"	5/8" 3/4" 5/8" 3/8"	.60

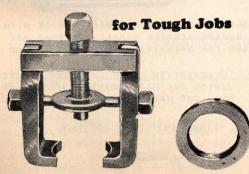
HEAVY DUTY SETS 3/4" sq. Con.

**Heavy Duty Truck and Tractor Sockets** 



THORSEN HEAVY DUTY SOCKETS ARE HOT FORGED AND "TECHNIHEAT" PROCESSED. THE SIDE WALLS ARE STRAIGHT, THIN, AND HAVE ENORMOUS RESISTENCE TO BREAKAGE. UNNECESSARY BULK AND WEIGHT HAVE BEEN ELIMINATED. SUPPLIED WITH FINE, SMOOTH POLISH IN NATURAL STEEL FINISH.

No.	SOCKET OPENING	PRICE
1228	7/8"	\$0.75
1230	15/16"	
1232	15/16"	.75
1234	/ . / .	.75
		.85
1236	1-1/8"	. 90
1238	1-3/16"	. 95
1240	1-1/4"	1.00
1242	1-5/16"	1.00
1244	1-3/8"	1.10
1246	1-7/16"	1.20
1248	1-1/2"	1.35
1252	1-5/8"	1.55
1256	1-3/4"	1.75
1258	1-13/16"	1.95
1260	1-7/8"	2.25
1264	2"	2.45
1268	2-1/8"	2.75
		1)



Wheel Puller

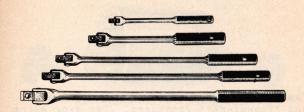
Truck Attachment

No. 10171 H. D. FORD WHEEL (HUB) PULLER HERE IS THE ONE WHEEL PULLER THAT REALLY TAKES THE FORD WHEELS OFF. HEAVY. STRONG, DURABLE FORGED NICKLE-CHROMIUM STEEL. SIZE APPROXIMATELY 6x9". SUITABLE FOR MODEL A AND V8 INCLUDING 1937. FOR TRUCKS USE THE RING ATTACHMENT.

No. 10171	H.D. FORD WHEEL PULLER.	\$16.50
No. 10172	TRUCK ATTACHMENT	2.75
No. 10173	PULLER AND ATTACHMENT	19.25



"LINKJOINT" FLEX HANDLES



A MANDLE WHICH MAY BE USED AS AN OFFSET, A SWIVEL, A TEE HANDLE AND NUT SPINNER. FRICTION BALL HOLDS DRIVE TIP AT ANY ANGLE. STANDARD AND JUNIOR HANDLES DRILL ED FOR TEE BAR. STANDARD HANDLES HAVE 1/2" SQUARE HOLE IN END.

No.	LENGTH OF HANDLE	CONN. PRICE	
12MH 12MS	5"	1/4" Sq. 1.25	
12J	7 1/2" 10"	1/2" Sq. 1.90	
15 16 16LW	15" 18"	1/2" Sq. 2.90	
18	22"		

## "LINKJOINT" One Hand Spinners



A LIGHT WEIGHT JUNIOR SOCKET HANDLE WITH 3/8" SQUARE SERVICE CONNECTION THAT MAY BE USED FOR SPINNING NUTS WITH ONE HAND.

No. Description Conn. Price 13J Junior one hand spinner 3/8" \$1.90 13 Std. one hand spinner 1/2" 2.40

#### "LINKJOINT" FLEX SPEEDER



A COMBINATION OF A FLEX OR OFFSET HANDLE AND A SPEED WRENCH. A GREAT TIME SAVER ON MAJN AND CON ROD BEARING CAP SCREWS.

No.	LENGTH	OF	SHANK	CONNECTION	PRICE
10		3"		1/2	\$2.50
100		3550		3/8"	2.25
11A		5"		1/2"	2.75
111		5"		3/8"	2.50
11		8"	-	1/2"	2.75

OFFSET SOCKET HANDLE



THORSEN OFFSET "L" OR SOCKET HANDLES ARE MADE OF SPECIAL TWIST PROOF AND STRAIN RESISTING STEEL BARS. LIGHT WEIGHT WITH COMFORTABLE KNURLED GRIPS. SHORT AND LONG OFF SET AVAILABLE IN BOTH STANDARD AND HEAVY DUTY TYPES.

No.	DESCRIPTION	CONN.	PRICE
21	SHORT BEND L HANDLE	1/2"	\$0.85
21HD	SHORT BEND L HANDLE	3/4"	2.25
23	LONG BEND L HANDLE	1/2"	1.10
23HD	LONG BEND L HANDLE	3/4"	2.25

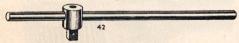
#### UNIVERSAL JOINTS



THORSEN UNIVERSAL JOINTS USED FOR CONNECTING SOCKETS WITH HANDLES AND EXTENSIONS ARE SHORT YET HAVE WIDE ANGLE TURNING RADIUS. CONNECTING PINS ARE MADE OF SPECIAL TEMPERED STEEL, INSURING LONG LIFE AND CONTINUOUSLY SATISFACTORY OPERATION.

No.	DESCRIPTION	CONN.	PRICE
33	UNIVERSAL JOINT	1/2"	\$1.65
33.1	UNIVERSAL JOINT	3/8"	1.50

## COMBINATION OFFSET AND TEE HANDLE Sliding Head



THORSEN TEE HEADS ARE MANUFACTURED UNDER SPECIFICATIONS THAT PRODUCE GREAT STRENGTH OF MATERIAL WITHOUT UNNECESSARY WEIGHT.

SPRING BACKED FRICTION BALLS HOLD THE BAR IN PLACE WHEN SPINNING THE HANDLE.

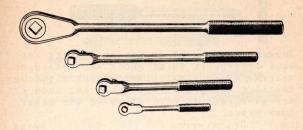
No.	DESCR	IPTI	ON		CONN	PRICE
17	SLIDING	BAK	TEE	HEAD	3/4"	\$2.25
42	SLIDING	BAR	TEE	HEAD	1/2"	1.10
421	SLIDING	BAR	TEE	HEAD	3/8"	1.00

## PERFECTED DESIGN

## AND QUALITY

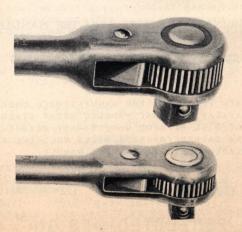
We are in Position to Supply Many items not listed in this Catalogue. We Invite your Inquiries.

# THORSEN TOOLS IMPROVED RATCHET HANDLES



THORSEN RATCHET HANDLES ARE DESIGNED TO BE MECHANICALLY SIMPLE AND FREE FROM OPERATING TROUBLE. REVERSING IS ACCOMPLISHED BY FINGER TIP CONTROLLED PAWL, CONVENIENTLY LOCATED ON THE SMALL DIAMETER HEAD. THE OPERATING MECHANISM IS THOROUGHLY EXPOSED MAKING THE TOOL SELF-CLEANING AND EASY TO INSPECT. THE ENTIRE HANDLE IS BUILT WITH TRIM, SLENDER LINES, IS LIGHT IN WEIGHT AND DEVELOPED TO RENDER SATISFACTORY SERVICE OVER A LONG PERIOD OF TIME. THE STANDARD SERIES RATCHET HANDLES COME WITH TWO HANDLE LENGTHS. (SEE TABLE.) THE #79 RATCHET IS REVERSED BY PUSHING SERVICE CONNECTING PLUG THROUGH THE CENTER OF THE RATCHET.

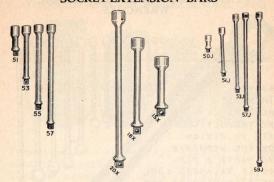
No.	LENGTH	CONN	PRICE
77	10"	1/2"	\$3.60
773	7"	3/8"	2.75
77L	15"	1/2"	3.85
79	20%"	3/4"	7.50



NOTE THE OPEN, EASY TO CLEAN, STRONG AND STURDYCONSTRUCTION OF THE THORSEN RATCHET HANDLE. INTERLOCKING PAWLS HAVE TWO MILLED TEETH FOR EXTRA STRENGTH AND HOLDING POWER ABILITY TO ENTER CLOSE AND RESTRICTED CORNERS IS POSSIBLE BECAUSE OF SMALL HEAD.



SOCKET EXTENSION BARS



THORSEN SOCKET EXTENSIONS ARE ALL HOT FORGED AND ESPECIALLY TREATED UNDER THE TECHNIHEAT PROCESS. SPECIAL STRAIN AND TWIST PROOF STEEL USED IN ALL TYPES TO INSURE GREAT STRENGTH AND PERFECT ALIGNMENT.

No.	LENGT	н	CONN.	PRICE
15X 16X	4 1/2"	EXTENSION	3/4"	1.45
16X	8"	EXTENSION	3/4"	1.50
18X	10"	EXTENSION	3/4"	1.75
20X	16"	EXTENSION	3/4"	2.00
500	1 1/2"	EXTENSION	3/8"	\$0.55
50M	2"	EXTENSION	1/4"	.40
51	3"	EXTENSION	1/2"	.65
510	3"	EXTENSION	3/8"	.65
51M	2" 5"	EXTENSION	1/4"	HEX .40
53	5"	EXTENSION	1/2"	.70
531	5"	EXTENSION	3/8"	.70
55		EXTENSION	1/2"	. 80
550	7"	EXTENSION	3/8"	.75
57	10"	EXTENSION	1/2"	.85
570	10"	EXTENSION	3/8"	.80
59	18"	EXTENSION	1/2"	1.40
590	18"	EXTENSION	3/8"	1.25

### SPECIAL EXTENSIONS FOR FLYWHEEL TEE HEAD

1.35

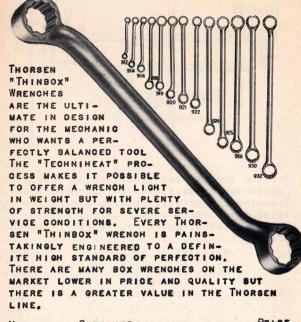
#### SPEED WRENCH HANDLES



BALANCED FOR FAST SPINNING. LIGHT IN WEIGHT. MADE OF SELECTED ALLOY STEEL.

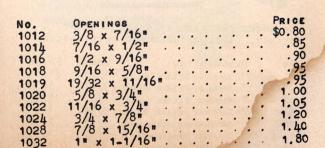
No.	DE	SCRIPT	ION		CONN.	PRICE
61	5"	SHANK	BELOW	BEND	1/2"	\$1.65
61J	5"	SHANK	BELOW	BEND	3/8"	1.50
62	10"	SHANK	BELOW	BEND	1/2"	1.75
621	10"	SHANK	BELOW	BEND	3/8"	1.65
65	18"	SHANK	BELOW	BEND	1/2"	1.90
650	18"	SHANK	BELOW	BEND	3/8"	1.70
68J	8"	SHANK	BELOW	BEND	3/8"	1.60

OFFSET, DOUBLE-END, "THINBOX" WRENCHES



No.	OPENINGS								PRICE
912	3/8" x 7/16"								\$0.80
									.85
914	1/2 x 9/16"		18				Pa.		.90
918									.95
	10/10 1 11/1/1								.95
919	19/32 x 11/16"								
920	5/8 x 3/4"								1.00
921	5/8 x 11/16"								1.00
922	11/16 x 3/4"								1.05
	2/9								1.20
924	3/4 × 7/8"								
925	25/32 x 13/16"								1.20
928									1.40
									1.60
930	15/10 × 1/46#	•		•	•	•	•	·	1.80
932	1" x 1-1/16"								
936	$1-1/8 \times 1-1/4$ "								2.65

## STRAIGHT DOUBLE END "THINBOX" WRENCHES



# THORSEN (T) TOOLS

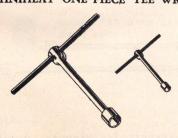
#### THORSEN XPELAIR WHEEL KNOCK OFFS



THORSEN WHEEL KNOCKOFFS, BECAUSE OF THE CAREFUL WORKMANSHIP AND HEAT TREATING USED IN CONNECTION WITH THE VERY FINE ALLOY STEEL, INSURE SATISFACTORY PERFORMANCE OVER A LONG PERIOD OF TIME. EACH KNOCKOFF IS FURNISHED WITH AN AIR VENT HOLE DRILLED IN THE SIDE AND PERMITS SCREWING UP TIGHTLY AGAINST THE AXLE SHAFT.

No.	OPENING	THREADS	PER	PRICE
400	5/8"	INCH		
100		18 SAE		\$0.80
101	3/4"	16 SAE		.90
101C	13/16"	16 SAE		.95
102	7/8"	14 SAE		.95
102E	7/8"	18 USS		. 95
103	1"	14 SAE		1.00
104	1-1/8"	12 SAE		1.40
106	1-1/4"	12 SAE		2.00
107	1-1/4"	7 USS		2.00

#### TECHNIHEAT ONE PIECE TEE WRENCHES

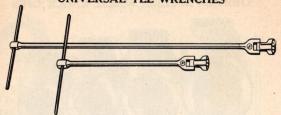


THORSEN TEE WRENCHES ARE HOT FORGED FROM BARS OF ESPECIALLY SELECTED ALLOY STEEL AND ARE THOROUGHLY "TECHNIHEAT" PROCESSED TO INSURE THE GREATEST STRENGTH AND LONG LASTING QUALITIES. USED PRINCIPALLY IN AEROPLANE, INDUSTRIAL AND MARINE NUT SCREWING OPERATIONS.

No.	SOCKET	PRICE		SOCKET	
2112	3/8" .	.\$1.10	2212	3/8" .	
2114	7/16".	. 1.30	2214		. 1.65
2116	1/2" .	. 1.45	2216	1/2" .	. 1.75
2118	9/16".	. 1.45	2218		. 1.80
	5/8".	. 1.55	2220	5/8" .	. 1.90
2122	11/16"	. 1.60	2222	11/16"	. 1.95
2124	3/4" .	. 1.70	2224	3/4" .	. 2.05
2128	7/8".	. 2.10	2228	7/8" .	. 2.45



UNIVERSAL TEE WRENCHES



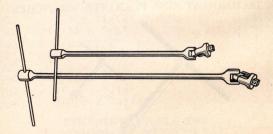
THORSEN SUPER-SHORT UNIVERSAL TEE WRENCHES ARE MANUFACTURED UNDER THE MOST EXACTING DESIGN SPECIFICATIONS. THE WEIGHT HAS BEEN REDUCED TO THE LOWEST POSSIBLE FIGURE YET THERE IS A DEFINITE INBUILT SUPERSTRENGTH THAT HAS LONG BEEN RECOGNIZED BY THE MOST EXPERIENCED MECHANICS WHO USE THESE WRENCHES FOR SPEEDING UP WORK ON ALL REPAIR OR ASSEMBLING OPERATIONS.

#### 12" SHANK

#### 20" SHANK

No.	SOCKET	PRICE	No.	SOCKET	PRICE
	OPENING			OPEN.	
1112	3/8" .	.\$2.40	1412	3/8" .	.\$2.60
1114	7/16".	. 2.40	1414	7/16".	. 2.60
1116	1/2".	. 2.40	1416	1/2".	. 2.60
1118	9/16".		1418	9/16".	. 2.60
1120	5/8".	. 2.40	1420	5/8".	. 2.60
1122	11/16"	. 2.75	1422	11/16"	. 2.90
1124			1424	3/4" .	. 2.90

## UNIVERSAL TEE HANDLE FOR DETACHABLE SOCKETS



THORSEN UNIVERSAL TEE HANDLES, MANUFACTURED FOR DETACHABLE SOCKETS, ENABLE THE USER TO HAVE A COMPLETE SET OF UNIVERSAL TEE WRENCHES BY SIMPLY ATTACHING THE DESIRED SIZE SOCKET. THE UNIVERSAL JOINT IS NOT AS SHORT WHEN COMPLETE ASSEMBLY IS MADE AS IT IS WHEN THE SOCKET IS PERMANENTLY ATTACHED LIKE THE 1100 AND 1400 SERIES. IF THIS IS NOT AN IMPORTANT FACTOR THE WRENCHES ARE COMPLETELY SATISFACTORY AND PRODUCE A LOW GOST COMPLETE SET.

			STATE OF THE PERSON NAMED IN COLUMN
No.	LENGTH	CONN.	PRICE
1450	12"	1/2"	\$2.50
14500	12"	3/8"	2.40
1475	18"	1/2"	3.00
14750	18"	1/2"	2.75

## THORSEN (F) TOOLS FORD SERVICE TOOL SECTION



V-8 CONNECTING ROD SOCK-ET, VERY THIN AND STRONG. NOT GUARANTEED. No. 10118 EACH \$0.45



MODEL "A" CONNECTING ROD SOCKET, 21/32" OPENING.

No. 521 EACH \$0.50



MODEL "A" MAIN BEARING socket, 9/16" square, (8 point) opening.

No. 51888 EACH \$0.45



MODEL "A" FAN PULLEY LOCK NUT SOCKET. USE MOTOR CRANK TO LOOSEN NUT.

No. 10144 EACH \$1.15



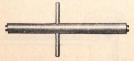
MODEL "A" SPECIAL BRAKE SHOE SOCKET, VERY SHORT, 9/16" OPENING.



No. 10118A EACH \$0.45



Nos. 10111 101098 10109



10108 No.

FORD CARBURETOR JET WRENCHES

1934's V8 JET WR. No. 10109 \$0.55

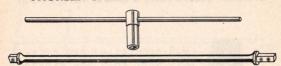
MODEL "A" JET WR. \$0.90

STROMBERG (DODGE) JET WR. No. 10109S \$0.55

1933-4 V8 JET WRENCH No. 10108 \$0.90



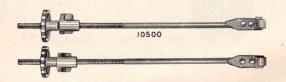
THORSEN SPECIAL PURPOSE TOOLS



CYLINDER HEAD CAP SCREW SETTER COMBINATION SCREWING DOWN CYLINDER HEAD OAP SCREWS IS A SLOW JOB WHEN DONE WITH ORDINARY HANDLES WITH THE THORSEN "FLYWHEEL" TEE HEAD AND SOCKET EXTENSION BAR (MADE WITH EXTRA LONG SERVICE CONNECTION TO PREVENT WOBBLE), CAP SCREWS CAN BE SPUN UP OR DOWN IN HALF THE USUAL TIME. WHEN TIGHTENING UP CYLINDER HEAD CAP SCREWS START AT CENTER OF HEAD AND SPREAD OUT TO ACQUIRE EVEN SETTING PRESSURE.

USE HEAVY DUTY UNIVERSAL SOCKETS, (THREE CAP SCREW SIZES,) NOS. 420H, 422H AND 424H TO SECURE BEST RESULTS AND AVOID BREAKAGE. REFER TO LISTING OF UNIVERSAL SOCKETS FOR PRIOES.

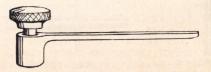
No.	54	FLYWHEEL TEE HEAD		\$1.25
No.	600	SOCKET EXTENSION,	18"	1.35
No.	60E	SOCKET EXTENSION,	26"	1.50



WINDSHIELD GLASS PULLING CLAMPS
WITH THESE CORRECTLY DESIGNED CLAMPS IT IS
NOT NECESSARY TO RISK GLASS BREAKAGE WHEN
INSTALLING WINDSHIELD GLASS. A BIG TIME
SAVER TOOL THAT SOON PAYS BACK ITS COST.
SOLD IN PAIRS.

No. 10500 PRICE PER PAIR

\$4.00



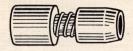
TAPPET ADJUSTING WRENCHES
A TAPPET ADJUSTING WRENCH AND SCREW DRIVER
FOR OVERHEAD VALVES.

No. 10018 9/16" SOCKET . . . . \$1.60 No. 10020 5/8" SOCKET . . . . . 1.60



STUBBY TAPPET ADJUSTING DRIVER
BIG SURE GRIP VISCALOID HANDLE
AND SHORT BLADE MAKE THIS SCREW
DRIVER IDEAL FOR TAPPET WORK
NO. 141TA SCREW DRIVER....\$0.60

# THORSEN TOOLS CHEVROLET SERVICE TOOLS



PAN SOCKET SCREW DRIVERS
THE SCREWS THAT ATTACH OIL PAN OR CRANK
CASE TO CYLINDER BLOCK ARE EASILY HANDLED
WITH THESE HEAD ENCLOSING SCREW DRIVERS;
DESIGNED ESPECIALLY FOR CHEVROLET AND PONTIAC. 3/8" SQUARE (JUNIOR) SERVICE CONN.

No. 10211 CHEV. SOCKET SCREW DRIVER \$0.85 No. 10211P PONTIAC SOCKET SCREW DR. .85



No. 10215 Chevrolet Main Bron and con Rod wrench, 5/8 and 3/4" 12 pt. openg\$2.65

#### HARMONIC BALANCER

#### DRIVER AND PULLER

This special tool should be used in removing and replacing the harmonic balancer and pulley assembly.

To remove: attach the cross arm body to the balancer assembly tightly, by using the two side screws; assemble center screw through starting crank bracket and tighten against end of crank shaft, which will remove the balancer assembly.

To replace: insert small driving head into crank jaw part of balancer; attach tool to balancer assembly as above, making sure the screws are drawn up tight; insert center screw through starting crank bracket, into small driving head attachment of tool and tighten center screw, then drive balancer assembly into place. Also used on Chrysler, Buick, Reo and other cars using harmonic balancers.



No. C272 HARMONIC BALANCER DRIVER



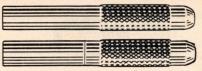
#### UNIVERSAL JOINT HOLDER

To make a quick job of assembling the universal joint, this tool is very necessary. It holds the universal joint in place while the mechanic assembles the job together. Fingers are tapered thin at the end.

No. C298 UNIV. JNT HOLDER... \$1.25

We are in Position to Supply Many items not listed in this Catalogue. We Invite your Inquiries.

## CHEVROLET SERVICE TOOLS



CHEVROLET VALVE GUIDE PUNCHES
THESE PUNCHES ARE NECESSARY FOR THE REMOVAL OF 1937 CHEVROLET VALVE GUIDES.

No. 10203 C PRICE PER PAIR

\$1.65



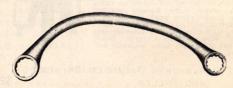
HUB BOLT PUNCHES

THESE TOOLS MAY BE USED ON THE HUB BOLTS OF CHEVROLETS, CHEVROLET TRUCKS, STANDARD AND BIG BUICKS. CORRECTLY DESIGNED TOOLS BUILT FOR HARD SERVICE.

No. 10010 FOR CHEVROLET CARS AND STD.
BUICKS, PRICE PER PAIR \$2.25
No. 10011 FOR CHEVROLET TRUCKS AND BIG
BUICKS, PRICE PER PAIR \$2.75



CHEVROLET STEERING ECCENTRIC WRENCH
A NECESSARY TOOL WHEN MAKING ADJUSTMENTS
ON STEERING MECHANISM, 7/8" OPENING.
No. 10220 CHEV. STEERING WRENCH \$0.80



CHEV. MANIFOLD, STARTER AND GENERATOR WR. Especially designed to remove and replace nuts and bolts found in difficult and hard to get at places on the Chevrolet generator, starter and manifold. Correctly bent to handle these jobs perfectly. Box socket

OPENINGS 9/16 AND 5/8".

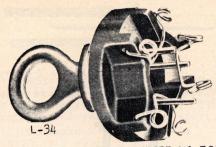
No. 10218 GENERATOR, MANIFOLD AND STARTER WRENCH, PRICE \$1.10

No. 10219 5/8 AND 3/4" OPENING 1.25



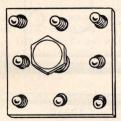
\$1.00

# THORSEN TOOLS CHEVROLET SERVICE TOOLS



CLUTCH FINGER SPRING INSERTING TOOL
INSERT LATE MODEL CHEVROLET CLUTCH FINGERS
IN FIFTEEN SECONDS WITH THIS RECENTLY
DEVELOPED SPECIAL TOOL. SAVES IT'S COST
ON THE FIRST CLUTCH JOB THAT COMES IN THE
SHOP. TO OPERATE; PUSH TOOL THROUGH
UNTIL SPRING CAN BE HOOKED OVER LONG ROD,
THEN PUSH THROUGH SO SPRING MAY BE HOOKED
OVER NEXT SHORTEST ROD AND ETC.

No. L-34 CLUTCH SPRING TOOL PRICE .60



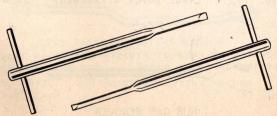
#### FAN HUB PULLER

WHEN THE WATER PUMP HAS TO BE OVERHAULED USE THIS PULLER TO REMOVE THE FAN HUBS.

MADE ESPECIALLY FOR CHEVROLET BUT MAY BE USED ON FORD, STUDEBAKER AND SEVERAL OTHER MAKES OF CARS. A GREAT CONVENIENCE AND TIME SAVER.

No. 10201 FAN HUB PULLER

\$2.50



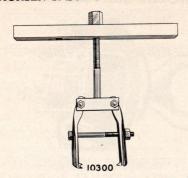
CHEVROLET (CARTER) CARBURETOR JET TOOLS Nos. 10202 AND 10203

THESE NECESSARY TOOLS ARE DESIGNED FOR FAST EFFICIENT SERVICE WORK ON BOTH OLD AND NEW STYLE CARBURETOR JETS USED ON CHEV. ROLETS.

No. 10202 OLD MODEL CARB. JET WR. EA. \$0.75 No. 10203 NEW MODEL CARB. JET WR. EA. .75

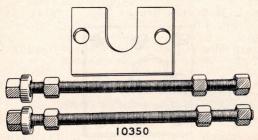
# THORSEN (FT) TOOLS

THORSEN SPECIAL PURPOSE TOOLS



No 10300 G.M. PINION PULLER

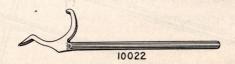
THIS PULLER IS A NECESSARY ADDITION TO SHOPS SERVICING GENERAL MOTOR CARS. IT IS THE ONE SATISFACTORY PULLER FOR HYPOID GEARS. No. 10300 G M PINION PULLER PRICE \$9.25



DRIVE SHAFT COUPLING PULLER AND PUSHER DESIGNED TO REDUCE THE TIME OF REMOVING AND REPLACING THE COUPLING ON CHEVROLET AND BUICK DRIVE SHAFT. WHEN WORKING ON LARGE BUICKS AN ATTACHMENT IS NECESSARY. WHEN WORKING ON SEE LIST BELOW.

10350 DRIVE SHAFT PUSHER AND PULLER No. PRICE EACH \$14.80

LARGE BUICK ATTACHMENT No. 10351



#### HUB CAP REMOVER

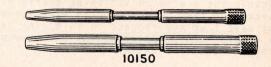
A Double Purpose Tool. May be used to RE-MOVE BOTH OUTSIDE AND INSIDE HUB CAPS WITH IT IS MUCH SUPERIOR TO SCREW OUT DAMAGE. DRIVERS. AS THE FLAT POINT IS SHARPENED SO THAT ENTRY CAN BE MADE WITHOUT CHIPPING PAINT.

# THORSEN TOOLS FORD SERVICE TOOL SECTION



MODEL A AND V-8 GUIDE PUNCHES
Two very necessary tools for punching out
valve guide on all Ford motors. Especially selected and treated alloy steel.

No. 10120 Model A Punch No. 10123 V-8 Punch \$1.00



MODEL A AND V-8 PISTON PIN INSERTERS
TOOLS PERFECTLY DESIGNED FOR REMOVING AND
REPLACING THE PISTON PINS IN MODEL "A" AND
V-8 MOTORS. THE ENTERING PILOT EXPANDS,
LOCKING RING WITHOUT BREAKAGE. OPERATION:
UNSCREW PILOT PLACE PIN ON HANDLE, REPLACE
PILOT, SET UP TIGHT.

No. 10150 MODEL A INSERTER No. 10160 MODEL V-8 INSERTER

\$2.00



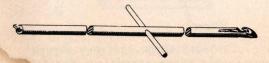
V-8 SHOCK ABSORBER FILLER PLUG WRENCH OFFSET BOX WRENCH WITH 7/16" EIGHT POINT AND 7/16" TWELVE POINT OPENINGS.

No. 10107 V-8 FILLER PLUG WRENCH

\$0.95



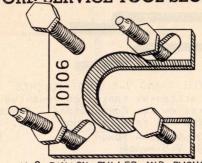
FORD BRAKE ADJUSTING WRENCH
EIGHT POINT BOX SOCKETS TO SERVICE BOTH
FORD CAR AND TRUCK. WORKS SATISFACTORILY.
NO. 10114F V-8 BRAKE ADJUSTING WRENCH
PRIOE EACH \$1.20



FOR REMOVING AND REPLACING BRAKE SHOE SPRINGS. BUILT ESPECIABLY FOR THE JOB AND IS MUCH SAFER THAN A SCREW DRIVER.

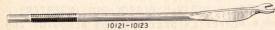
NO. 10110 BRAKE SPRING TOOL PRICE \$1.10

FORD SERVICE TOOL SECTION

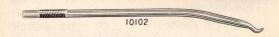


V-8 PINION PULLER AND PUSHER REMOVE THE PINION ON V-8 DRIVE SHAFTS WITH SPEED AND EASE. THIS TOOL IS MANUFACTURED TO SAVE TIME AND TROUBLE ON THIS KIND OF A PULLING JOB. MODERN DESIGN MAKES THIS TOOL A REAL TIME SAVER.

No. 10106 V-8 PINION PULLER AND PUSHER, \$5.85 PRICE EACH

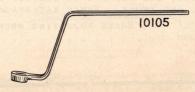


V-8 BAR TYPE VALVE LIFTER WHEN LIFTING THE SPRINGS OF V-8 MOTORS THESE LONG, SLENDER, KNURLED HANDLE BARS DEMONSTRATE THE SUPERIORITY OF DESIGN BY DOING THE JOB IN THE LEAST POSSIBLE TIME. USE THIS BAR IN ALL TOUGH JOBS. No. 10121 V 8-60 VALVE LIFTER No. 10125 V-8-85 VALVE LIFTER, PRICE



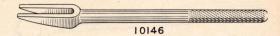
V-8 VALVE KEEPER REMOVER BAR CORRECTLY DESIGNED TOOL FOR REMOVING THE VALVE KEEPER ON ALL LATE V-8 FORD VALVE KEEPER MOTORS. USE THIS TOOL TO REDUCE TIME ON THIS TEDIOUS JOB.

No. 10102 V-8 VALVE KEEPER REMOVER \$1.35



V-8 DISTRIBUTOR ASSEMBLY WRENCH REMOVING THE DISTRIBUTOR IS A DIFFICULT JOB WITHOUT THIS ESPECIALLY DESIGNED BOX IT IS SUITABLE FOR ALL V-8 MODEL WRENCH. MOTORS.

# THORSEN TOOLS FORD SERVICE TOOL SECTION

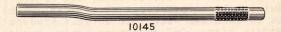


V-8 RADIUS ROD AND SHOCK ABSORBER LINK SEPARATOR No. 10146

A TOOL THAT EVERY FORD MECHANIC NEEDS.

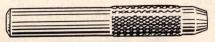
MADE OF WEAR RESISTING ALLOY STEEL, HEAT
TREATED AND TEMPERED FOR LONG LIFE. IT IS
USED TO SEPARATE SHOCK ABSORBER LINKS AND
TO REMOVE RADIUS RODS.

No. 10146 LINK SEPARATOR TOOL, PRICE \$2.25



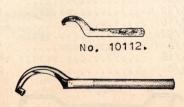
V-8 SPRING SHACKLE RUBBER BUSHING PUNCH A NEW MODEL BUSHING PUNCH THAT PERMITS DRIVING BUSHINGS FROM REAR. BECAUSE OF IMPROVED DESIGN THIS HARD JOB CAN BE DONE WITH A MINIMUM AMOUNT OF EFFORT AND TIME. THE LENGTH IS CORRECTLY PROPORTIONED TO AVOID BENDING.

No. 10145 SPRING SHACKLE PUNCH, EACH \$1.90



HUB BOLT PUNCHES FOR FORD PASSENGER CARS
PUNCHES MADE AND BUILT RIGHT FOR WORK ON
FORD PASSENGER CAR HUB BOLTS. DESIGNED,
HEAT TREATED AND TEMPERED FOR SEVERE SERVICE.

No. 10140 FORD HUB BOLT PUNCHES, PER



FORD PUMP PACKING NUT SPANNERS
DESIRABLE AUXILLIARY TOOLS FOR SERVICE
WORK ON PUMP PACKING NUTS

No. 10112 MODEL "A" FORD No. 10112V V-8 85 FORD No. 10116 V-8 60 FORD

\$0.60

# THORSEN TOOLS Handy Special Tools



CHRYSLER-DODGE-PLYMOUTH MANIFOLD WRENCH
A SPECIAL WRENCH DESIGNED TO GET INTO THE
CLOSE QUARTERS SURROUNDING CHRYSLER, DODGE
AND PLYMOUTH MANIFOLD NUTS.
No. 10404 MANIFOLD WRENCH \$0.60

## mm

BROKEN AXLE PULLER

THIS TOOL HAS A DOUBLE COIL, ONE LARGE, ONE SMALL FOR DIFFERENT SIZE AXLES. SCREW ON TO AXLE AND PULL. IT QUICKLY REMOVES BROKEN PART. ON ACCOUNT OF LENGTH ONLY ONE COIL IS SHOWN IN ILLUSTRATION.

No. 10920 Broken AXLE PULLER. PRICE \$0.50



#### MULTI-RANGE BUSHING DRIVER

No. 10151 Bushing Driver. Will Drive 7 sizes of Bushings. Four Steps on Punch and three hardened Rings. Sizes: 1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4"
No. 10151 Bushing Driver, PRICE \$2.50



RECESSED HEAD SET SCREW WRENCHES
HEXAGONAL STEEL BARS, HEAT TREATED AND TEMPERED FOR THE QUICK AND EASY MANDLING OF
RECESSED HEAD SET SCREWS SUCH AS ARE USED
ON KNEE ACTION, MOTORS, ETC.

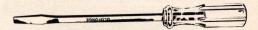
No.	HEX SIZ	E	PRICE EACH
56W	3/32"	SET SCREW WR	\$0.06
57W	1/8		06
58W	5/32		08
59W	3/16		10
80W	7/32		11
61W	1/4		13
62W	5/16		18
63W	3/8		28



#### DOOR HANDLE FLANGE DEPRESSOR

SET ONE OF THE RINGS OVER THE FLANGE THEN LEAN AGAINST IT TO EXPOSE SCREW THAT HOLDS HANDLE OF WINDOW ELEVATOR. THIS TOOL KEEPS UPHOLSTERY CLEAN AND DOES NOT MAR HARDWARE NO. 14CD DOOR HANDLE FLANGE DEPRESSOR\$0.50

SCREW DRIVERS



A SHOCK PROOF SCREW DRIVER, SQUARE SHANK BLADE, WITH A HANDLE OF THE MOST DURABLE SHOCK PROOF MATERIAL KNOWN THE HANDLE, AMBER TRANSPARENT, MACHINED TO FIT INTO THE PALM, IS GROOVED TO PREVENT SLIPPING IN GREASY HANDS.

No.		Si	7 F		PRICE
182A	1/8" 8	TOCK	2"	BLADE	\$0.35
184A		TOCK	4"	BLADE	.40
3163A	3/16"	STOCK	3"	BLADE	.70
3166A	3/16"	STOCK	6"	BLADE	.85
3169A	3/16"	STOCK	9"	BLADE	.95
142A	1/4"	STOCK	2"	BLADE	.75
144A	1/4"	STOCK	4"	BLADE	.90
146A	1/4"	STOCK	6"	BLADE	.95
148A	1/4"	STOCK	8"	BLADE	1.05
1410A	1/4"	STOCK	10"	BLADE	1.05
5167A	5/16"	STOCK	7"	BLADE	1.20
51612A	5/16"	STOCK	12"	BLADE	1.40
386A	3/8"	STOCK	6"	BLADE	1.35
3812A	3/8"	STOCK	12"	BLADE	2.00
3816A	3/8"	STOCK	16"	BLADE	2.20

#### OFFSET SCREW DRIVERS



BOTH ENDS OFFSET IN SAME DIRECTION, PREVENT ING GOUGING OF THE WRIST. HAMMER FORGED, ALLOY STEEL.

No. 800A OFFSET DRIVER SET

\$1.15

#### Ignition Screw Driver



No. 181 CLIP SCREW DRIVER

\$0.25

#### For Four-Point Recessed Heads



SPECIALLY DESIGNED FOR FAST ER DRIVING AND BETTER HOLD-ING POWER AND TO ACCURATELY FIT THE TAPERED FOUR-POINT RECESSES IN THE HEADS OF

PHILLIPS SCREWS AND BOLTS.

Catalog No.	Fits Phillips Screws	Length Of Blade	Overall Length	List Price Each
361	#4 & smaller	3	61/4	\$ .42 .45
362 363	#5 to 9 inc. #10 to 16 inc.	6	81/2	.60
364	#18 & larger	8	141/2	.75

SET No. 360, 1 each of the above drivers.

PRICE, complete in fibre box.....\$ 2.22

PRICE, complete in pocket leatherette case... 2.58



Screw Holding Screw Driver



Starts and removes screws in the most inaccessible places. Driver bit end is equipped with spring tension expanding lock which chucks tightly into the screw slot with no outside holding claws to interfere. Its grip will withstand an 8-lb. pull. Automatically releases when screw is tightened. Made in three lengths, with light-weight Duralumin handles, high carbon steel driving bits and a brilliant rust-proof finish overall.

No. P-1—Length 2½". Most suitable for removing speedometers, electrical parts and working in very confined quarters. Price each. \$.90

No. P-2—Length 5½". Oil Gauges, Generators, Ignition, etc. Price each 1.00

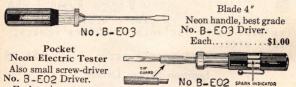
No. P-3—Length 9½". Pan Screws, Radio work, Adding Machines, Electrical Service. Price each 1.15

Screw-Holding Starters
Handles Bendix screw
and pan screws perfectly.
No. S-7. 7" Shank... \$ .75
No. S-4. 4" Shank... . .75
No. S-2. 2" Midget... .35



## Spark Testing Screw Drivers

Note: E02 and E03: When testing brilliant orange flash shows plug O.K. Completely shorted plug . no flash. Stringy flash . . . plug partly fouled.



## **Upholstery Screw Drivers**



For Socket Head Screws
Used on Chevrolet and Other Trucks

No. 341 for small socket slots. No. 342 for large socket slots.

Nos. 341 or 342 Screwdrivers, Ea. ... \$0.36

### No. OF5 Flashlight Screw Driver



A very useful tool for any mechanic whose work requires the servicing of automobiles, oil burners, electric refrigerators, radios, etc. The handle is of transparent, ambercolored, non-conducting composition containing two standard flashlight batteries and bulb. Blade is %" in diameter with %" machine-ground tip, magnetized. It is made of fine quality screw driver steel, tempered overall and securely anchored in the handle.

No. OF5 FLASHLIGHT SCREWDRIVER .... \$1.68

## **Punches and Chisels**

PIN	DI	TAT	CI	ICC
PIIN	PU	IL	CI.	L

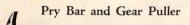
P51 P51 P52 P53 P54 P55 P55 P56 P57 P58	STOCK 5/32" 3/16" 1/4" 5/16" 3/8" 7/32" 1/8" 5/32" 3/32"	LENGTH 6" 6½" 7½" 7-5/8" 8" 6-7/8" 4½" 4½"	PRI 0 E \$0.40
P89	3/8"	5"	• 45
P89A	5/16"	4%"	• 35

#### CENTER PUNCHES

	CEITIE	at l'Oliches	
No.	STOCK	LENGTH	PRICE
77P	5/8"	611	\$0.65
77A	3/8"	5"	.45
77B	3/8" 5/16"	4%"	.45

#### JIMMY PRY BARS

No.	STOCK	LENGTH	PRICE
	1/2"	9"	\$1.00
75Q	5/8"	16"	1.40
74 <b>Q</b> 75 <b>Q</b> 76 <b>Q</b>	5/8" 3/4"	20"	2.10



PRY POINT THINNED DOWN TO READILY ENGAGE IN CLOSE FITTING PLACES, AND THE ROUNDED HEEL SUPPLIES POWERFUL LEVERAGE.



#### FORGED SCREW EXTRACTORS

No. 191X 192X 193X 194X	STOCK 1/4" 5/16" 3/8" 7/16"	LENGTH 4½" 4½" 4-3/4" 5½"	PRICE \$0.50 .55 .60
19X	SET OF FOUR	<i>J</i> /4	2.55

We are in Position to Supply Many items not listed in this Catalogue. We Invite your Inquiries.

# THORSEN (T) TOOLS Punches and Chisels

1	-14	-			
	FI	AT CO	LD	CHIS	ELS

No.	STOCK	LENGTH	PRICE
029	1/4"	5"	\$0.30
	1/4" 5/16"	5" 5"	.35 .40 .50
031	3/8"	6"	.40
032	1/2"	6%	.50
C33	3/8" 1/2" 5/8"	7"	.65
C3/1	3/4"	6½ 7" 8"	1.00
035	3/4"	16"	1.35
036	7/8"	911	1.25
C30 C31 C32 C334 C35 C36 C37	3/4" 3/4" 7/8" 7/8"	9" 22"	2.20

#### GOUGE CHISELS

No.	STOCK	LENGTH	PRICE
C231A	5/16"	5"	\$0.40
C231	3/8"	7"	.45
C232	5/16" 3/8" 1/2"	6"	.70

#### CAPE, CHISELS

No.	STOOK	LENGTH	PRICE
C131A	5/16"	5"	\$0.40
C131	3/8"	5"	\$0.40 .45 .60
C132	5/16" 3/8" 1/2"	611	.60

#### DIAMOND POINT CHISE.

No.	STOCK	LENGTH	PRICE
C331A	5/16"	5"	\$0,40
C331	3/8"	6"	\$0,40 .50 .60
C332	5/16" 3/8" 1/2"	6"	.60

#### LONG DRIFT PUNCHES

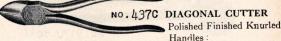
No.		STOCK	LENGTH	PRICE
4005 (0	R 86B)	3/8"	12"	\$1.00
1007 (0	R 86A)	1/2"	14"	1.15
4005 (o 4007 (o 4009 (o	R 86)	5/8"	14"	1.30

#### SOLID OR LONG TAPER PUNCHES

No.	STOCK	LENGTH	PRICE
3905 (OR 85A)	1/4"	6"	\$0.45
3907 (OR P89)	5/16"	6½n	. 45
3909 (OR P85)	3/8"	7"	.45
3911 (OR P84)	1/2"		.70
3913 (OR P87)	1/2" 5/8"	7" 8#	.75
3915	3/4"	9#	.90
3/1)	214		

## THORSEN (T) TOOLS **PLIERS** MECHANICS'

Alloy Steel



No. 437C 7" DIAGONAL CUTTER .



PUMP PLIER Alloy Steel

Length 9½"

Capacity 1/2" to 17/8" Polished Finish

9% PUMP NUT PLIER 2.00 420C



Alloy Steel

The Channellock grips round. oval, oblong, square or hexagon objects from \( \hat{n}'' \) to  $1\frac{1}{8}''$  in size

410C 9% GRIPPING PLIER 2.25



Length 71/4" Capacity 3 to 34 round or square.

417C 7% GEN. PURP PLIER. . 1.70

Alloy Steel Cutting Plier



Drop forged from the finest Alloy Steel. Hand honed cutting knives that will cut clean and stand up. NO. 39U DIAGONAL CUTTER. .\$1.80

No. 40∪ Diagonal Cutting Plier



A high leverage easy cutting diagonal plier. Drop forged from alloy steel.

No. 400 DIAGONAL CUTTER.

We are in Position to Supply Many items not listed in this Catalogue. We Invite your Inquiries.

No.



### Water Pump Nut Plier



Full fashioned handles for a good grip. Jaws that will open for all sizes of water pump nuts.

517U PUMP NUT PLIER. 1.75

### **Diagonal Cutting Plier**



Drop forged from Alloy Steel. Hardened and tempered in oil.

5" 1.50 No. 410 4" 6" PRICE EA. \$1.35

## Long Needle Nose Side Cutting Plier



This Plier is adapted for extra fine work. It is forged from a special quality of Alloy Steel, and its carefully spring-tempered nose and keen, strong cutting edges make it a most desirable tool for fine work.

No.655U 5%" PRICE EA. \$1.55 1.75 1.90

## Utility Nut, Bolt and Stud Plier



This Alloy Steel Gripping Plier is made to take hold of bolts, nuts and studs with a bite that won't let go. The harder you pull the tighter it grips.

### 528U GRIPPING PLIER No.

## Long Thin Nose Slip Joint Plier



the hard to get at places. Drop forged from alloy steel. Carefully heat treated.

518U SLIPJOINT PLIER. .

No

## THORSEN (T) TOOLS IGNITION PLIER



This Ignition Plier is made in the Channellock patented design, has unusual strength. On account of the Channellock feature there is no danger of bolt breaking as there is no strain on the bolt.

No. 424C CHANNELOCK IGN. PLIER



This Ignition Plier with its unique design will fit all ignition units, very light in construction, forged from Alloy Steel with correctly designed handles, spring tempered.

517U IGNITION PLIER, EA ..... \$1,10 No.



This is a special plier, new in design, having a chain nose for those who prefer this type of construction. Forged from alloy steel.

No. 82U CHAIN NOSE PLIER EA . . . \$1.65

## ORIGINAL MULTIGRIP PLIERS

Drop Forged from Chrome Vanadium Steel



Multigrip Midgets No. 167 and No. 1671/2

Little giants of capacity and utility for ignition, radio and general electrical work. No. 167 has finger tip control handles. No. 167½ full grip handles. Range 0" to ½6". Length 4½". Weight 2 ozs.

1678 SATIN FIN. ION PLIER, EA....\$0.81 167M NIOKLE FIN. ION. PLIER, EA 167%S SATIN FIN. ION. PLIER, EA 167%N NIOKLE FIN. ION. PLIER EA \$0.96 No. No.

## Auto Electric Tweezers No. 140R

FOR IGNITION and CARBURETOR WORK

No.



WHEN MAKING REPAIRS OR ADJUSTMENTS OF ANY DEVICE THAT HAS SMALL PARTS SUCH AS RADIO SPEEDOMETERS, MAGNETOS, IGNITION POINTS OR PARTS, THERMOSTATS, ELECTRICAL MACHINES OR DEVICES, CLOCKS OR WATCHES USE THIS DUPLEX POINT HOLDER AND TWEEZER. No. 140R AUTO ELECTRIC TWEEZER, EA.

## (Tr) TOOLS **THORSEN BATTERY SERVICE TOOLS**



SELF GRIPPING Maximum Capacity 1/8" to 3'

407C GRIPPING PLIER .....



Nos. 522U AND 524U BATTERY PLIERS.

Battery Pliers, forged from Alloy Steel, designed to prevent breaking the battery case cover.

POLISHED BATTERY PLIER ... \$1.25 522U 5240 UNFINISHED BATTERY PLIER No.



Made of heat treated alloy steel Bluid finish Maximum opening 1 inch

NO. 307 BATTERY PLIERS ....



## "Van-Chrome" Battery Plier No. 179

1798 SATIN FINISH ......\$1.02 No. 179N NICKLE FINISH ..... No.

No. P24 UTILITY PLIER 7"



An excellent battery and all around gripping plier. Jaws at 90 degree angle. Wire cutter and screw driver end. P24 UTILITY PLIER, 7"..... \$1.20 No.



### "Van-Chrome" Terminal Lifter and Scraper No. 177

Under the powerful leverage of this tool, badly frozen or corroded battery terminals snap up easily without marring, cracking, or loosening the plates or injuring the tops of the cells. A special release joint dismembers the plier, providing one section with a serrated nose for cleaning terminals and the other with sharp jaws for scraping posts.

No. 1775 SATIN FINISH ......\$1.74 No. 177N NICKLE FINISH ..... 1.98

ALR NOZZLE ATTACHMENT FOR STANDARD TIRE INFLATING CHUCKS.



FITS INTO STANDARD AIR CHUCKS HANDY FOR BLOWING OUT PIPE LINES ETC. SERVES AS A COUPLING. THREADED TO FIT SPRAY TANKS, OIL OR GREASE CONTAINERS. No. 23RA NOZZLE ..\$0.35

## THORSEN (FT) TOOLS **Ignition and Electric**



Every mechanic who has to do motor tune-up or ignition service knows the value of correct timing. Cars improperly timed never run smooth and are wasteful in operation. Connect one lead to the Spark Plug, the other to ground. When the light flashes it illuminates markings on the fly-wheel at the same instant the explosion is taking place in the cylinder. Operator can instantly observe whether to advance or retard his spark setting to get perfect timing. The Neon Timing Light may also be used for synchronizing double breaker points; testing automatic spark advance; testing spark plugs, etc. Packed in neat box with complete instructions which are easily understandable and followed.

No. 9TL TIMING LIGHT, EA.....\$3.95

## Electrical and Ignition Wrenches and Sets

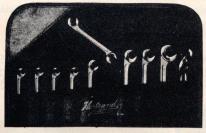


15° and 60° Angle Heads Drop Forged from Chrome Vanadium Steel

Wrench	Openings Milled		Thickness		
No.	15° Angle	60° Angle	Heads	Length	Each
*81 ‡82 ‡83 ¶84 85 §86 H 87 88 89	13 64 61 13 64 61 13 65 61 61 61 61 61 61 61 61 61 61 61 61 61	1564 1364 144 145 156 921 38 1150	7.64 7.64 7.64 7.64 7.64 7.64 11.64	3 3 3 3 3 3 4 4 4 4 4 4	\$0.45 0.48 0.54

\*For Ford Ignition ‡Auto-Lite and Bosch †Delco ¶Remy §Wagner and Remy No. 97 H contains one each Nos. 81, 82, 83, 84, 85, 86, 87.

PRICE, in flannel lined leatherette roll No. 99 H contains the nine wrenches above and No. 167-N Plier. PRICE, in flannel lined leatherette case.



No. 99 H LISTED ABOVE

## **Extra-Small Box Wrench Set**

No. 21BT

2	No.	Openings	Length	Net Price
	E40	% & 18% Hexagon	23/6	\$0.57
	E42	1/2 & 15/4 Hexagon	31/8	.57
	E44	1/4 & 1/2 Double Hexa	33%	.57
	E46	1 % & 11/2 Double Hex	33/4	.57

No. SET IN CARDBOARD BOX No. 21BT SET IN LEATHERETTE ROLL 2,52



# FOR CONTACT POINTS

You can bend it! You can twist it! It will not break off. And so you can put it into the awkward little corners where files or other tools can't go! Made of the hardest of abrasive materials pressed into a flexible core

A LL of the abrasive qualities of the hardest of grinding stones, PLUS FLEXIBILITY, makes RIMAC FLEX-STONE the ideal tool for cleaning and smoothing down contact points and commutators.

### SUPPLIED IN TWO WAYS

No.	XF1	FLEX STONES	ONE DOZ	BOXED	\$0.80
No.	XF2	FLEX STONES	ONE DOZ	CARDED	0.90
No	YE 3	SINOIF FIEL	STONE	FA	0 15

## Contact Point Files

For dressing and cleaning Confact Points, Spark Plugs, Lamp Bulbs, Switches, Bells, Signal Systems, Electric Devices of all kinds

NO.CF1 POINT FILES ONE DOZ. BOXED \$0.90
NO.CF2 POINT FILES ONE DOZ.OARDED 0.95
NO.CF3 SINGLE CONTACT FILE, EA...... 0.15



### Perfect Commutator Cleaner

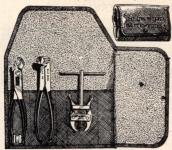
A LOCK CONTROLLED, COMBINED CLIP AND HANDLE HOLDING 36" OF PROPER GRADE SAND-PAPER TO CLEAN COMMUTATORS WHEN NECESSARY. DESIGNED ESPECIALLY FOR THIS PURPOSE.

No. D12 COMMUTATOR TOOL, EACH

\$0.50

## THORSEN (F) TOOLS

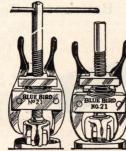
No. 375 Battery Service Kit



An efficient combination of rior Bat-Tools that Superior tery insures ease, speed and better connections, assembled in a three compartment black leatherblack leather-ette kit. Con-tains one each of the following:

No. 375 BATTERY SERVICE KIT..... \$3.75

## Universal Clamp Lifter



A super-powerful tool designed and guaranteed to remove the most badly corroded clamp of any style, shape or form.

Grips from below clamp if there's room but otherwise the sharp points of jaws engage sides of clamp with a vice-like grip.

Double Cam Action

The Harder You Pull the Tighter It Grips
Simple in Operation Positive in Action.

No. 218 UNIVERSAL CLAMP LIFTER .... \$1.50

## Hex Nut Plier and Post Cleaner

Super leverage to which the most stubborn nut will yield.



No. 1188 BATTERY PLIER ..... \$1.25

## Clamp Spreader and Cleaner



A quick, easy and efficient way to spread and clean terminal clamps

No. 20B GLAMP SPREADER...... \$1.00
Super-Grip Battery Plier

Maintains its own grip after engaging hex., s quare or round parts.



No. 528 BATTERY PLIER..... \$1.00

## Angle Nose Battery Plier



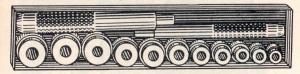
Designed for full grip on terminal nuts. Greater sur-

face contact insures better grip and more leverage.

No. 25B BATTERY PLIER.....\$1.00



BUSHING SERVICE SET



BUSHINGS ARE EASY TO REMOVE WITH THIN THIS SET OF STEP COLLARS AND DRIVING ALL POPULAR AND NECESSARY SIZES INCLUDED IN THE SET AND FURNISHED AT ALL PARTS PROPERLY REASONABLE PRICE. HEAT TREATED ALLOY STEEL. \$4.10 BUSHING SERVICE SET ......



Place prongs on the posts of each Cell. If your reading shows "Good" cut in the resistance between the prongs to put a "load" on the cell and if

the reading remains stationary the cell is OK. Every Service Station needs this fast Battery Tester.

## No. P-20-Battery Cell Tester. Each.... Point Resurfacer

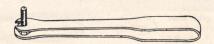


PERFECT ALIGNMENT OF CON-TACT POINTS AND BREAKER ARMS MAY BE OBTAINED WITH THIS TOOL. WHEN POINTS ARE IN THIS TOOL, GRIND THEM EITHER BY HAND OR AN ELECTRIC DRILL UNTIL A PER FECT SURFACE IS OSTAINED.

NOT SET POINTS UP AGAIN ST SANDING DISC TOO HARD. A LIGHT CONTACT IS NECESS-ARY TO AVOID THROWING SUR-FACE OUT OF ALIGNMENT

10A RESURFACER DISCS PER DOZ .....

### DISTRIBUTOR OR CONTACT POINT HOLDER



Only a minute to start a distributor point with this holder. Ignition wrench or ignition plier easily fits between jaws of this holder so point may be turned without interference.

## THORSEN (T) TOOLS

## **Ignition Punch Set**



Every Mechanic needs a High Grade Pin Punch Set for handling small pins, screws, points, etc. Here is a set of Excellent Quality containing: Short Pin Punches with Points 2/32, 5/4, 3/32; Long Pin Punches, with Points 3/32, 4/32, and 5/32. One Solid Punch, one Prick Punch and a Center Punch together with a Miniature screw-driver all packed in substantial Wooden container with lid.

No. M-756-Punch Set, 10 Tools. Complete.....



## Flexible Fingers

This Flexible-Shaft Pick-up Tool enables you to reach around corners to any location.
Will start screws, retrieve lost parts. Has
powerful grip, fully flexible and made to
withstand long service. One of the handiest tools we have.

LENGTH	PRICE
9"	\$0.65
12"	.75
15"	.85
18"	.95
21"	1.05
	9" 12" 15" 18"



## Electric Pick Up Magnet



A Powerful Magnet operated from 6-volt Storage Battery. Entire tool is quite flexible and can be easily bent or adjusted to any position without damaging tool in any way. A wonderful assistant to any grease station for removing steel particles from rear ends crankcases, etc.

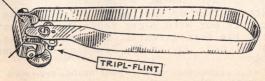
Magnetic Pick-up Tool. Price each No. L-32.....\$2.75



Quickly cleans corrosion from contact wells in Distributor Heads and Coils.

No. B-29-Brush. Each.....\$ .25

## TRIPL-FLINT LIGHTER



WHEN ONE FLINT WEARS OUT, UNSCREW TRIPLE FLINT HOLDER AND MOVE A NEW ONE INTO SER-VICE

No. 333 TRIPL-FLINT LIGHTER, EA. .... \$0.75 No. 333A THREE FLINT RENEWALS, EA .....

## THORSEN TOOLS Lamp Tongs



Changes Lamp Bulbs swiftly and without danger of cutting hands. Saves loosening glass from base of lamp, brings out broken-off stubs of lamps when corroded tight, etc.

No. 15C LAMP BULB TONGS, EACH.....\$0.50



NO. 444 LAMP BULB GLOVES

Provides complete protection to the fingers when handling lamp bulbs. Made of rubber with flexible gripping teeth molded on inside. It's low price makes it especially appealing to motorists.

No. 444 L.B. GLOVE \$0.15



## UNIVERSAL DOORLESS HEADLIGHT, LENS REMOVER AND HOLDER

Designed with six cups. No danger of breaking lens or outting hands with this tool. Will fit Plymouth, Dodge, Chrysler, Packard, Nash, Lafayette, DeSoto, Hudson, Terraplane, Studebaker, Auburn, Graham, Chevrolet, Oldsmobile, La Salle, Willys, and many others.

No. 20RL LENS REMOVER .... \$1.35

### STARTER SWITCH RATCHET WRENCH



ELIMINATE SHORT CIRCUITS AND BURNS BY US-ING THIS RUBBER INSULATED HANDLE RATCHET WRENCH. HAS LONG PROTRUDING SOCKETS WHICH REACH INTO INACCESSIBLE PLACES.

No.	SOCKET SI	ZE	PRICE
RW 5025	9/16"	OPENING OPENING	\$0.50
RW 5025 RW 5026	5/8"	OPENING	. 50
RW 5027	11/16"	OPENING	.50

RW 5025K SET OF THREE ABOVE SIZES 1.50

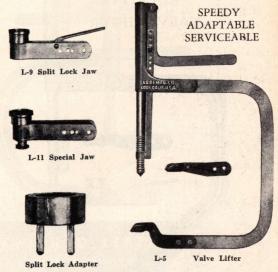


SHEET METALS OR SOFT SHEET MATERIALS ARE READILY OUT WITH THESE TOOLS. USE DISC OUTTERS FOR SOFT MATERIAL. DIAMETER OF CIRCLES AS FOLLOWS: JUNIOR 5", STANDARD 6½", JUMBO 10½"

DUAL BLADE-Round Shank	DUAL BLADE—Square Shank
#700 <b>PJ</b> unior Model\$2.50 #800 <b>P</b> Standard Model 3.00 #900 <b>PJ</b> umbo Model 5.30	#1100 PJunior Model\$3.00 #1200 P Standard Model 3.80

SINGLE BLADE—Round Shank	SINGLE BLADE—Square Shank
#100 PJunior Model\$1.50	#500 P Junior Model\$2.30
#200 PStandard Model 2.30	44 000 4 0 00000
#300 P Jumbo Model 3.80	#600 PStandard Model 3.00

### VALVE LIFTER



### Features

Major adjustments, for long and short valves made at point where Links contact Lever. Finer adjustments made by screwing plunger up or down in threaded bracket. Jaws are adjustable for various diameters of valve springs. Operator compresses spring with single downward pull of lever, which automatically locks past dead center.

L-5 Standard Lifter. As illustrated with one p	air
Straight and one pair of Offset Jaws	.\$7.50
L-5-A, Frame only	.\$2.25
JAWS JAWS	
L-6 Standard Straight Jaws, Per Pair	\$1.00
L-7 Standard Offset Jaws, Per Pair	\$1.0Q
L-6-A Heavy Duty Straight Jaws (Universal)	\$1.25
L-7-A Heavy Duty Offset Jaws (Universal)	\$1.25

Universal Jaws will fit Stevens Waldron and Little Wonder

### **ATTACHMENTS**

L-9 Split Lock Jaw, as illustrated, Universal Punching, with one each L-12-A and L-12-B Adaptors..........\$3.85 This Patented Jaw is used to quickly remove or install Split Locks on engines WHERE TAPPET ASSEMBLIES ARE REMOVABLE.

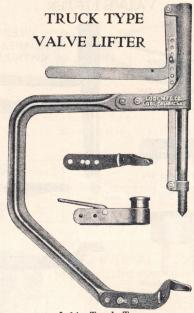
L-11 Special Jaw, as illustrated \$3.50

For use on 1928, Model G. E. Studebaker Dictator Special keepers. Will positively re-pay cost in time saved

Plunger Foot L-27 for removing valves on Cadillac, LaSalle and Lincoln. Tight Locks removed quickly

L-27 Plunger Foot.....\$0.75





L-14—Truck Type

Major adjustments, for long and short valves made at point where Links contact Lever. Finer adjustments made by screwing plunger up or down in threaded bracket. Jaws are adjustable for various diameters of valve springs

L-14 Light Truck Type Lifter, as illustrated with
one pair Heavy Duty Straight and one pair
Heavy Duty Offset Jaws \$8.25
L-14-A. Frame only \$2.50
L-14-11. Traine only
00
HEAVY DUTY LIFTER
This lifter has all the features of the L-14, plus Channel Design Frame with 13" Clearance around manifolds. Valve Stems as long as 10" can be serviced with this tool. This frame takes a special head and is not interchangeable
with other tools. L-15 Heavy Duty Truck Type Lifter, as illustrated
L-1) Heavy Duty Huck Type Litter, as mustrated
with one pair Heavy Duty Straight and one
pair Heavy Duty Offset Jaws\$9.75
L-15-A, Frame only \$3.00
L-20 XM Waukesha Split Keeper Jaw with L-12D
For use on Waukesha XA, XAK, 6XL, 6XK and M Series
L-21 VSR Waukesha Split Keeper Jaw with L-12E
Adaptor\$4.00
For use on V, VK, 6KS, 6KU, 6SRL, and 6SRK Models.
L-22 WB Waukesha Split Keeper Jaw with L-12- WB Adaptor \$4.00
WB Adaptor \$4.00 For use on AB, HB, and RB Models.
I 22 6 00 Waykesha Split Keeper Jaw with I-12-
L-23 6-90 Waukesha Split Keeper Jaw with L-12- 90 Adaptor
For use on Waukesha Model 6-90.
L-24 6-110 Waukesha Split Keeper Jaw with L-12-
110, Adaptor\$4.00
För use on Waukesha 6-110.
L-25 6-125 Waukesha Split Keeper Jaw with L-12-
125 Adaptor \$4.00
For use on Waukesha Model 6-125.
Recommend 1-27 Plunger Foot for removal of valve
Locks when stuck on 6-90 and 6-110 models.

## THORSEN (T) TOOLS

## SPECIAL LOW PRICED LIFTER

For all Chevrolet models including 1935. Fits 1933-34-35 Plymouth, Dodge, Chrysler and DeSoto six cylinder motors, WITH MANI-FOLDS REMOVED.

Makes an excellent bench as sembly tool for 1934-35 Ford V-8 valve work. Clamp lifter frame in vise.

L-17



SPECIAL LIFTER



new K-D No. 900 Lifter ne fastest Valve Lifter

into position otors with un-clearance be-tappet hous-d valve spring

No. 900-KD VALVE LIFTER \$2.00

motors with low hung Manifolds and Sweeping Fenders. Total Lift 3" vs plenty of working space and clear of valve when working under fender. Total length only 834".

## Valve Guide Puller Set

(Consists of Puller and Driver)

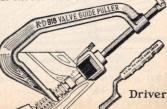
FORD V-8 1934 TO 1936 AND LINCOLN-ZEPHYR.

A Husky, Reliable Outfit No Matter How Tight the Guides Are Frozen.

NO ADJUSTMENTS, NOTHING TO LINE UP. SIMPLY SET IN PLACE AND TURN HANDLE.

POSITIVE IN ACT-ZEN VALVES STRA-IGHT UP.

Showing Puller in position on motor. The No. 920 Valve Guide Puller s



## THORSEN (F) TOOLS Standard Feeler Gauge

Guaranteed Accurate

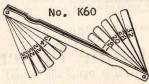


No. 20G 21G 26G 26F 27G 25F 22G 29F	LGTH BLADES 24" 3" 3%" 3%" 3%" 3%" 6%"	NO.OF BLADES 6 9 10 15 25	PRICE \$0.30 .50 .65 .75 1.00 1.50 1.25
	SIZES OF BI	LADES ON GAUGES	

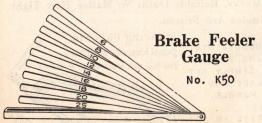
	SIZES OF BLADES ON GAUGES
20G	2 3 4 12 13 20 THOUSANDTHS
21G	2 3 4 6 8 12 13 20 25 00
26G	2 3 4 6 8 12 13 20 25 Do
26F	2 3 4 5 6 7 8 10 12 15 00
27G	2 3 4 5 6 8 11 12 13 14 Do
25F	ALL SIZES 1%-25 DO
22G	2 3 4 5 6 8 10 15 00
29F	2 3 4 5 6 8 10 15 Do

GAUGES WITH SPECIAL COMBINATIONS OF BLADES CAN BE SUPPLIED UPON RECEIPT OF SPECIAL QUOTATIONS FURNISHED IF REQUESTED ORDER.

## **Ignition Feeler Gauge**



Ten narrow blades. 18" wide, 11/2" long. Thickness of blades as shown.

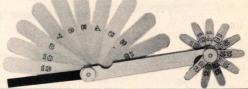


Nine narrow blades 3 " wide, 4" long. Thickness of blades as shown.

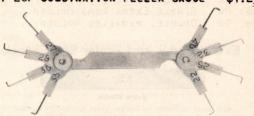
LETH BLADES NO. OF BLADES No. K60 \$0.75 0.75 1%" 10 K50 4 SIZES OF BLADES ON CAUGES 11 12 14 18 20 22 25 28 30 35 M 6 8 10 12 14 16 18 20 25 M K60

K50

## THORSEN (T) TOOLS **Special Feeler Gauges**



THIS SPECIAL FEELER GAUGE IS MADE UP OF A COMBINATION OF STANDARD AND IGNITION BLADES WITH POINT FILE: No. 28F COMBINATION FEELER GAUGE \$1.25



THE SETTING OF SPARK PLUG GAPS IS MORE ACCURATELY DONE WITH A WIRE GAUGE. THIS GAUGE IS MADE UP OF HARD TEMPERED WIRES SECURELY FASTENED TO HANDLE INTO WHICH THEY CAN BE FOLDED. SIZES: 22 25 27 30 32 35 40 Thousandths.

No. 578W SPARK PLUG GAUGE......\$1.00



DESIGNED ESPECIALLY FOR THE CHEVROLET MAN AND MADE COMPLETE EVEN TO FLOAT LEVEL GA-UGE FOR CARTER CARBURETORS. SIX BLADES RULE, POINT FILE AND FLOAT GAUGE. SIZES: 6 8 13 18 24 32 40 M. No. 23FC CHEVROLET FEELER GAUGE.... \$0.75

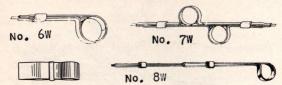


THE BLADES ON THE FORD SPECIAL FEELER GA-UGE ARE "STEP" CUT FOR GO AND NO GO MEAS-UREMENTS. ALL SIZES OF BLADES FOR MODELS FA B AND V'8. SIZES:13 14 14 16 17 22 22 25 35 M.

No. 24F FORD SPECIAL FEELER GAUGE .... \$0 75



## Feeler Gauge Holder

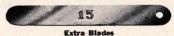


9W No.

Feeler Gauge Stock of any length can be rolled in the handle and dout as required. Slide clip at end holds Gauge tightly at all times.

rea out	asieut	ned. Didde clip at clid notab dange organization	
No.	6W	SINGLE HOLDER, EA\$0.25	
No.	7W	DOUBLE HOLDER, EA 45	
No.	8W	SINGLE EXTRA LONG HOLDER 50	
No.	911	DOUBLE, PARALLEL HOLDER 35	

## **Extra Blades and Feeler Strip Stock**



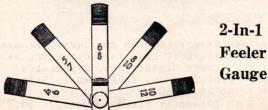
with Hole to Insert in Gauge. Sizes Etched on Blades.

LENGTH	SIZE	PRICE
	ANY	\$0.10
3½"	ANY	. 12%
9 11	ANY	.15
12 11	ANY	.25

## Feeler Gauge Stock - 1/2 Inch Wide



Marked every foot and size etched. Pull out the desired number of feet and cut at mark with snips. \$0.20 PER FOOT ANY SIZE PRICE



The 2-m-1 Feeler Gauge is designed to meet the requirements of modern Valve Adjusting. The shoulder on the tips of the blades gives a "Go-No-Go" adjustment that is faster and far more accurate than the ordinary feeler will allow.

No.	LENGTH	BLADES	PRICE
1M	3¼"	6	\$1.45
2M	3¼"	5	1.25
3M	4%"	6	1.65
3M 4M FORD	3¼" 4½" 3¼"	9	1.55
No. 111		8 8-10 10-12	М

10. 1M 4-6,5-7,6-8,8-10,10-12 M 2M 4-6,5-7,6-8,7-9,8-10,10-12 M 3M 4-6,5-7,6-8,8-10,10-12 M 4M 10-13,12-13,12-14,15-17,18-22, 20-22,25,30,35 dditional Blades: 4-6,5-7,6-8,7-9,8-10,9-11,10-12, 10-13,11-13,12-13,12-14,13-15,14-16,15-17,18-22,20-22. Additional Blades: Price each. No.

Additional Blades: ,20

## **Tappet Wrenches**



### "Van-Chrome" Tappet Wrenches

Double End—15° Angle

Drop Forged from Chrome Vanadium Steel

Wrench No.	Openings Milled	Thickness Heads	Length	Each
H-1	1/6 & 17/62	5/62	71/4	\$ .51
H-2 H-3	1/2 & 9/18 5/6 & 11/4	7/62	8	.54
H-4	34 & 7/8	1/2	9	.69



### "Van-Chrome" Extra Long Tappet Wrenches

Wrench No.	Openings Milled	Thickness Heads	Length	Each
LT-11	7/16	3/16	121/2	\$0.96
LT-12 LT-13	1/2	3/16	12 ½ 12 ½	φυ.,σ
LT-14 LT-15	5/8	3/16 3/16	12 ½ 12 ½	1.02

SET No. LT-6 contains one pair each of No. 12, 13 and 14.

PRICE, in box \$5.88 in pocket leatherette case.......

\$ 6.30

SET No. LT-10 contains one pair each of the 5 sizes listed.

PRICE, in box \$9.84 in pocket leatherette case\_\_\_\_\_\_\_10.32



### "Van-Chrome" Ultra Tappet Wrenches

Self-Locating Thin Jaws



Dotted outline shows how rounded ends of the jaws automatically revolve the tool into working position making immediate engagement.

No pointed jaws extending beyond the nut to jam or interfere.



keeping pace with the march of progress in automotive engineering Herbrand Introduces the new and distinctive Ultra Tappet Wrenches. These modern wrenches offer unparalleled advantages of speed, clearance, strength and ease of operation. Note particularly the scientific construction of the self-locating jaws.

The 8½" lengths permit working clear of hot motors and the pitch of the 15° angle jaws is correct to readily engage tappet nuts most conveniently and efficiently. These outstanding, modern Tappet Wrenches are drop forged from genuine Chrome Vanadium Steel, electrically heat treated and finished in lustrous triple plate with mirror polished heads.

Wr. No.	Size Openings	For U.S. Std. Nuts	For Hex. Cap Screws	For S.A.E. Nuts and Cap Screw	ness	Length	Price Each
T-1 T-2 T-3 T-4 T-5	7/16 & 1/2 1/2 & 1/6 1/6 & 5/8 5/4 & 11/6 3/4 & 1/6	74	1/4 & 5/18 5/16 & 3/8 3/8 & 7/16 7/16 1/2 & 5/8	14 & 5/16 5/16 & 3/8 3/8 & 7/16 7/16	5 32 5 32 5 32 5 32 3 16	9 1/2 9 1/2 9 1/2 9 1/2 9 1/2 9 1/2	\$ .60 .65 .70 .80 .90

SET No. T-70, two each of Nos. T-2 and T-4. Weight 1 lb.

PRICE, in box \$2.94 PRICE, in pocket leatherette case 3.24

SET No. T-75, two each of Nos. T-2, T-4 and T-5. Weight 134 lbs

PRICE, in box \$4.68

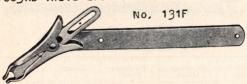
PRICE, in pocket leatherette case 5.10

# THORSEN TOOLS REPLACER

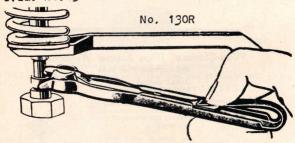
Valve Stem Split Lock



EASY LOADING, SELF SUPPORTING ON VALVE, ALLOWING BOTH HANDS FREE TO LOWER VALVE SPRING. QUICK AND EASY TO OPERATE. MADE OF PRESSED STEEL, 7" LONG, WITH OFFSET CONSTRUCTION TO ALLOW WORK IN CLOSE PLACES NO.605KD VALVE LOCK INSERTER......\$1.4C



PLIER ACTION, EASY LOADING, HOLDS LOCKS IN POSITION UNTIL VALVE SPRING IS LOWERED. A FINE TOOL, PERFECTED FOR LONG SATISFACTORY SERVICE. TO OPERATE: PLACE KEYS IN JAWS WITH SLIDING BLADE FORWARD, PUSH JAWS AGAINST VALVE STEM UNTIL KEYS CLAMP AROUND STEM. NO.131F V.L.INSERTER......\$1.75



PERFECT OPERATING, LOW COST VALVE LOC" INSERTER. INSERTS KEYS AT ANY ANGLE OR SLANT. HAS POSITIVE STOP SO KEYS WILL NOT OVERRIDE STEM.
NO. 130R VALVE LOCK INSERTER.....\$0.75



EASY LOADING, TAKES ALL SIZES OF LOCKS, NO POSSIBILITY OF DISLODGING LOCKS. TO OPERATE: DRAW BACK SLIDING BARS, INSERT KEYS THEN RELEASE BARS AGAINST LOCKS. 5½" LONG. NO.530VL VALVE LOCK INSERTER......\$1.00

OVERHEAD TAPPET ADJUSTING SCREWDRIVER.



Bulldog for Tappets 1¾" Blade

No. 530M SCREWDRIVER, EA. .. \$0.45

## THORSEN TOOLS

## Blu Streek Valve Guide Cleaners

GUARANTEED ONE YEAR







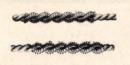
## DOUBLE COILED MUSIC WIRE SPRINGS

Springy, Flexing, Spiral Action Does Perfect Job on any Guide

CUTS CARBON
WITHOUT SCRATCHING

CLEANS AND BURNISHES VALVE GUIDES. NO DRILL NEEDED. THE DOUBLE COILED MUSIC WIRE SPRINGS ARE LONG LASTING AND ARE THOROUGHLY LOCKED INTO POSITION ON THE BODY WHICH IS MADE OF RUST-PROOF BRAIDED WIRE, 11½" LONG.

SIZE					PRICE
5/16" .					\$0.40
11/32"					.40
3/8,"					.40
13/32"					.40
7/16" .					.50
1/2"				-	.50
19/32"					.55
1"					.75



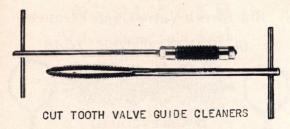


For burnishing cylinders after grinding. Burnishes to mirror finish. Does not scratch or line cylinder walls. Motor does not require usual breaking-in. Is adjustable from 2 inches to 4 inches. Expands with centrifugal force which insures a snug fit at all times. Used in  $\frac{3}{8}$ " or  $\frac{1}{2}$ " drill with speeds from 400 to 650 R.P.M.

NO. 18 C NO. 18 R CURLY-HEAD
Refills \$2.25

Price \$7.50

## THORSEN



THE CUTTING EDGES ON THESE VALVE GUIDE CLEANERS HAVE THE SAME FAST CLEANING AND CLEARING ACTION AS THAT OF A SHEET METAL THEY ARE FAST AND DO A CLEAN JOB. FILE. MAY BE RESHARPENED) AFTER EDGES BECOME DULL PRESSURE OF THE CUTTING FROM EXTENDED USE. BLADES CONTROLLED BY SPRING ACTION. PLIED IN ALL POPULAR SIZES.

No	10031	1" (V 8-85)	\$1.75
	10032	19/32" (MODEL "A")	1.50
	10033	27/32" (V 8-60)	1.75
	10034	5/16" AND 11/32"	1.00
	10035	11/32" AND 3/8"	1.10

## **Expanding Valve Guide Cleaners**



Spring Steel Blades are Expanded to required diameter. Carbon perfectly removed from any Valve Guide from  $\frac{5}{16}$ " to  $\frac{1}{2}$ ". No. V-100—Expanding Valve Guide Cleaners. Each. ..... \$1.00

## Valve Guide Reamers

E	(HEARIS)							
No.	Size	Each	No.	Size	Each			
1000	5/16"	\$1.15	1005A	27/64"	1.25			
1001	21/64"	1.15	1006	7/16"	1.40			
1002	11/32"	1.15	1007	29/64"	1.40			
1002A	23/64"	1.25	1007A	15/32"	1.40			
1003	3/8"	1.25	1007B	31/64"	1.40			
1004	25/64"	1.25	1008	1/2"	1.40			
1005	13/32"	1.25	1009	33/64"	1.40			

## Valve Grinder No. 711

This Valve Grinder is extremely rugged, all parts including ball bearing thrust are made to stand heavy service. Advances and reciprocates at different points. All gears heat treated and machined accurate; complete fittings, extensions, etc., will permit handling any job. Every No. 711 General Grinder is fully guaranteed to give satisfactory service.

No. 711-Grinder, complete with all attachments. Price.....\$2.85



### Solid Vacuum Rubber Tip

Fits any standard grinder, including No. 711, for grinding Ford "A" valves.....

## THORSEN TOOLS

## VALVE - IN - HEAD MOTORS TAPPET ADJUSTING

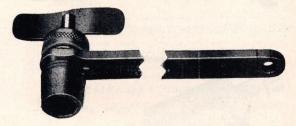
Makes Valve Tappets Easy To Adjust



THE MANCO TAPPET ADJUSTING WRENCH IS MADE OF SPECIAL ALLOY METAL, CHROMIUM PLATED, AND IS SUPPLIED WITH A LARGE, EASY GRIP, SCREW DRIVER HANDLE. A SATISFACTORY TOOL FOR THE ADJUSTMENT OF OVERHEAD VALVES.

No. 42TA MANCO TAPPET ADJ. TOOL \$1.95

## TAPPET TAKE-UP TOOL



THE FEATURE OF THIS TAPPET ADJUSTING TOOL IS THAT THE HANDLE REMAINS STATIONARY AS THE ADJUSTING HEAD ROCKS BACK AND FORTH UNDER A SPRING CUSHION WHICH IS INSERTED UNDER GAP, BELOW WING SCREW DRIVER HANDLE. ILLUSTRATION SHOWS THAT ANY STANDARD 12 SQ. CON. SOCKET MAY BE ATTACHED TO TOOL. NO SOCKETS SUPPLIED WITH TOOL UNLESS SPECIFIED, IN WHICH GASE THERE WILL BE AN ADDITIONAL CHARGE OF .50.

NO. 40TA TAPPET TAKE-UP TOOL EA. \$1.95

## Vacuum Tip Valve Grinders

High grade rubber, reinforced tip slotted to accommodate any screw-driver up to 3/8". Also works on mechanical grinders. Necessary for Ford "A" and works equally well on other types.

No. 48-Vacuum Tip only	\$ .15
No. 58—Complete with handle	25



## THORSEN (T) TOOLS

## Micrometer Gauge for Ford Valves NO THICKNESS GAUGE REQUIRED

No Time Wasted in Trying the Valve in the Motor



No more Guesswork in fitting valves.

Grind Ford Valves in half usual time, no thickness gauge. No guesswork. Get measurement from valve seat to tappet with depth gauge and micrometer. Mark reading on head of valve. Set micrometer up to clearance desired and grind valve to fit.

Simple and accurate, just one trip from car to grinder.

No. 130 Model 60, V-8 Fords .... \$4.75 No. 131 Model A, B and V-8 Fords, except Model 60 ...... 4.75

> Does the job in half the usual time



## V-8 Valve Spring Lifter



No. 2365-Ford V-8 Lifter. Length 24". Weight 2 lbs. Each. 1.26

## V-8 Valve Assembly Puller





A Chrome Alloy thrust washer is placed directly under the special large sized forcing nut on the center of the sleeve which evenly distributes the strain and concentrates the pull on a perfect center. A positive, one-man tool that is absolutely necessary.

One-final too.

To operate:

1—Remove slotted lock from valve assembly; 2—Raise valve sufficiently with lifting bar to slide puller cup, attached to stud, over valve head; 3—Slide grooved puller cup over valve head; 4—Place outer sleeve over pulling assembly with flat face (marked top) toward center of the block; 5—Run pulling nut down over thrust washer and tool is ready to pull.

Poliched in eatin pickel. Height 5". Weight 2 lbs. 14 ozs.

No.2364 VALVE ASSEMBLY PULLER..... \$4.95

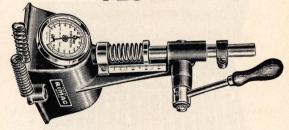


## Ford Valve Grinding Guide

With this tool, grinding Ford "A" and V-8 valves is easy work. Quickly applied, nothing to break, one-piece, non-sticking, and is a big time-saver.

No. 46-19/3	g" Ford "A	"		 \$ .85
No. 47-1"	Ford V-8.			 1.10
No. 26	27/32"	FORD	60	 .95

# THORSEN TOOLS VALVE and CLUTCH SPRING TESTER



Dial reads in pound units up to 250. Etched steel scale at side indicates exact length of spring under test. An adjustable stop is included for quick testing of an entire lot of springs for any one job.

You cannot guess at spring tension—it must be accurately measured on a machine that can be depended upon to keep its accuracy.

Capacity: Any spring up to 2 in. diameter; 5 in. length; maximum tension 250 lbs. Dial readings in both pounds and kilograms.

NOTE: We do not publish charts of data on Valve and Cluten Spring Tensions. Such information can be readily obtained from many sources who are in a position to keep it up to date. If interested in one car, truck or airplane motor only—the manufacturer of that motor will supply. If interested in many different motors consult the catalogs of the replacement parts manufacturers whose parts you are using.

No. 67 VALVE and CLUTCH SPRING TESTER Shipping weight 32 lbs. Net Price ......\$35.00

We are in Position to Supply Many items not listed in this Catalogue. We Invite your Inquiries.

## No. 81RValve Face Grinder

For only \$35.00 you can now get a Valve Face Grinder that does work equal to some of the most expensive machines on the market. A quick, smooth job either by hand or power-belt drive. Takes Valve stems 1/6 to 1/6 including Ford "A," "B" and V-8. Valves are rotated automatically by worm gear and rotate once to every 300 turns of the grinding wheel. Comes



completely equipped with Four Collets, Wheel Dresser; Drill holder for sharpening drills; Valve stem and piston pin attachment and Utility rest for sharpening fine-edge tools.

## THORSEN TOOLS

## **Abrasive Valve Seat Grinder**

FOR HARD AND SOFT VALVE SEATS



Set No. 720 B

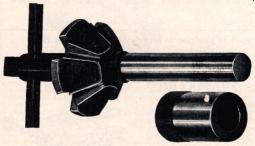
## FOR HARD AND SOFT VALVE SEATS

These Abrasive Valve Seat Grinders eliminate pur chasing expensive equipment, reduces set-up time 95% and is simple to operate

The Abrasive Grinder, a speed wrench and kerosene is all you need apply kerosene freely on the abrasive, to prevent clogging, and rotate the grinder in both directions when grinding, the same as when lapping

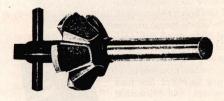
Accurate and Efficient Valve Reseating Set for all types of New Hard Seats. Also operates on old type Seats. Reduces "lapping" time by 75%. Consists of 5 Cutters (2 are not illustrated) — Sizes 1½" 45°; 1½" 30°; 2" 30°; 2½" 30°; 2½" 45°. Eighteen Pilots ranging from ½" to ½". Also 1" size for V-8 Ford. Five Dozen Extra Abrasives for Cutters. Complete in Substantial Metal Box.

No. 720B PRICE EACH . . . . . . . . \$14.05





## Abrasive Valve Seat Grinders and Accessories



No.718B For all model Plymouth including 1937. In cardboard box. contains, 1, 2-1/8" 45° abrasive cutter; two pilots, 11/32—004 and 3/8—003. One doz. abrasives(9 coarse and 3 fine) one handle.

No.718B PLYMOUTH VALVE SEAT GRINDER \$2.40

No. 713A FOR ALL CHEVROLET SIX MODELS, IN-CLUDING 1937. IN METAL BOX. CONTAINS THRE ABRASIVE CUTTERS, SIZES 1½" 45°, 1-9/16" 300, AND 2" 300; THREE PILOTS, SIZES 5/16" 11/32"--.003, AND 11/32" --.004; ONE DOZEN COARSE ABRASIVES FOR 1½" AND 1-9/16" CUTTER BIX COARSE ABRASIVES FOR 2" 30° CUTTER AND ONE HANDLE.

No.713A CHEVROLET V. SEAT GRINDER \$5.85

## ABRASIVE DISCS

			TIDILI	TOTAT T				
								Net Price
No	725-A	dozen	coarse	Abrasives	for	21/8"	45°	\$ .50
	725-B	"	fine	"	"	21/8"	45°	.50
	725-AB	"	(9 coars	se and 3 fine)	for	21/8"	45°	.50
	726-A	"		Abrasives		2"	30°	.50
	726-B	"	fine	"	"	2"	30°	.50
	726-AB	"		se and 3 fine)	for	2"	30°	.50
	727-A	"		Abrasives		21/8"	30°	.50
	727-A 727-B	"	fine		"	21/8"	30°	.50
		"		e and 3 fine)	for	21/8"	30°	.50
	727-AB	11.					45°	.50
	729-A	"	coarse	Abrasives	101			
	729-A	"		"		1 16"	30°	.50
	729-B	"	fine	"	,,	11/2"	45°	.50
No.	72 <b>9</b> -B					1 16"	30°	.50
No.	729-AB	"		e and 3 fine)		11/2"	45°	.50
No.	729-AB	"	" - "	" " "	"	1 16"	30°	.50
No.	730-A	-	coarse		for	31/8"	45°	1.00
No.	730-B	"	fine	"	"	31/8"	45°	1.00
100	730-AB	"	(9 coars	e and 3 fine)	for	31/8"	45°	1.00

## INDIVIDUAL ABRASIVE CUTTERS

1177			A REAL PROPERTY.
		Size N	let Price
No.	531 B	21/8" 45°	\$1.50
	532 B		1.50
No.	533 B	21/8" 30°	1.50
	534 B		1.50
No.	535 B	2" 30°	1.50
No.	.536 B	31/8" 45°	3.00
No.	139	Ford V-8 Valve	
		Guide Bushing	
		(except model 60)	\$ .40
No.	1408	Ford V-8 Valve	
		Guide Bushing	
		for model 60	.35

Pilots — All Standard, Over- and Under-size, except 19/32", 20c each 19/32" Pilot, 25c each Special Size Pilots, 50c each

## THORSEN (T) TOOLS

## Reid's Piston Ring Compressors

Reid Ring Compressors are universally recognized by the best mechanics to be the most outstanding tool of this type on the market. Has full die-formed special concave spring-steel body which will positively hold its shape. The selflocking device, regulated by tension screw, makes compression of any size ring easy and free from costly breakage and distortion. Spool assembly is adjustable to middle or edge of tool permitting pressure where you want it.

Can be used for installing all pistons whether above or below motor. The most widely used and perfect Compressor for general service work.



No. 10-Cap. 21/2"	to 4¼"	\$1.75
No. 2C-Cap. 31/2"	to 5¼"	1.95
No. 3C-Cap. 5"	to 7¼"	3.00

### DADTO

	In	IKIS	
Detachable Handle\$	.30	Tape for No. 1 or 2 \$	.30
Spool Assembly	.75	Tape for No. 3	.45

## Rimac Ring Compressor

Low Priced Compressor. Covers all passenger cars. Can be used above or below cylinder.

120R RING COMPRESSOR \$0.95



## Ring Groove Cleaner

Cutter Blades 3/32, 1/8, 5/32, 3/16



## Hundreds of mechanics have contributed to the design of this tool

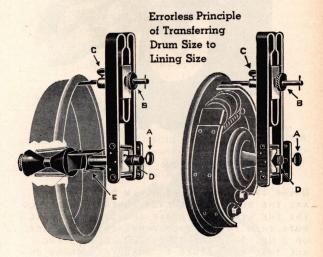
- Radial cutter. Does not tilt sideways or gauge sides or bottom of groves.
- No cut hands or fingers. Cutter enclosed.
- 3. Spring Tension on cutter holder gives uniform working pressure. No chatter. Rides over oil holes.
- Locked cutter and locked frame permits jumping out of groove.
- 5. Can be used to deepen grooves if desired by pressing thumb to cutter.
- 6. Wide Range. Handles all pistons from smalls to six inches.

No.	122 F	RING GE	BOOVE	CLE	ANE	R.	 	 .\$1.50
No.	122X	EXTRA	CUTTE	RS			 	 50

# THORSEN TOOLS MO-GIL-NER BRAKE AND DRUM GAUGE



IN STURDY METAL BOX



THREE SIMPLE MINOR ADJUSTMENTS AND THE GAUGE IS IN POSITION FOR A PRECISION BRAKE ADJUSTMENT,

THE MO-GILNER BRAKE AND DRUM
GAUGE CAN BE USED ON BRAKES AND
DRUMS FROM 7 TO 17" IN DIAMETER.
HIGH SPOTS, ROUNDNESS AND CONCENTRICITY SHOW UP IMMEDIATELY.

FRONT AND REAR WHEELS OF BOTH MODEL A AND V8 FORDS ARE QUICKLY AND EASILY CHECKED WITH THIS TOOL.

PROGRESSIVE SHOPS
ARE ELIMINATING OLD
METHODS, SUCH AS
DUMMY DRUMS, WORKING
BY GUESS AND HAVING
THE CUSTOMER COME BACK
FOR FREQUENT READJUSTMENT.

GET IT RIGHT THE FIRST TIME

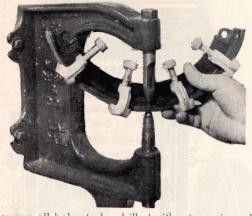
To secure the BEST RESULTS BE SURE TO FOLLOW INSTRUCTIONS SUPPLIED WITH EACH GAUGE.

No. 250 Mo-Gil-Ner Brake Gauge....\$12.75

# THORSEN TOOLS PEE-CLAMP

FOR LINING BRAKE SHOES

DOES A BETTER JOB FASTER



Allowing all holes to be drilled without moving clamp on 90 per cent of brake shoes. Riveting with clamp in place, no incumberance with heavy equipment.

BRAKE SPECIALISTS, PROCLAIM THESE CLAMPS ARE THE BEST DEVICE EVER INVENTED FOR HOLD ING THE LINING ON BRAKE SHOES. ONE TRIAL PUTS THEM IN THE SHOP PERMANENTLY. A SET OF 4 No. 1-D, AND 1 No. 2-D, CLAMPS ARE ALL THAT ARE NEEDED TO HOLD THE LINING ON PRACTICALLY EVERY KIND AND TYPE OF BRAKE SHOE. AN INNOVATION IN BRAKE LINING CLAMPS. LOW IN COST, LONG LIFE.

No. 1-D STANDARD CLAMP

No. 2-D HEAVY DUTY CLAMP

EA

No. 5-DS SET

4 No. 1-D STANDARD 1 No. 2-D HEAVY DUTY EACH \$0.70 EACH \$1.25

SET \$4.05





No. 2Dfor heavier type shoes and bands, particularly large and small alternate drilling.



## The Universal Star

Complete with both sets of short and long hooks

will apply either molded or woven lining from cut lengths or rolls, and force it tight to the shoe.

No. 10SR BRAKE LINING TOOL .... \$7.50



The Star No. 14 Brake Lining Applier is designed to quickly and accurately apply cut lengths of drilled and counter-

No. 14-S BRAKE LINING TOOL .... \$7.50





## PEDAL JACK

USED WHEREVER SPRINGS OR STRESS ARE TO BE OPPOSED ONE JACK DOES IT ALL



No Gears—No Ratchets—It Turns a Two-Man Job Into a One-Man Job No.M46 Jack \$2.75

## **Brake Depressor**



Has both Ratchet and Screw adjustment. Makes brake adjusting a One Man Job. Sturdily built. This tool is also a time-saver putting on crank case pans—it holds them up.

## **Hydraulic Clamps**



Holds the brake cylinder in closed position to prevent bleeding when shoes are removed. A great time saver. Easily applied, wing nuts lock it on securely.

No. 16-Z SET HYDRAULIC BRAKE CLAMPS \$1.00



## Hydraulic Plunger Clamps

The Picture Tells the Story

Spring Steel — instantly placed. No loss of fluid, time or trouble. A set pays for itself on one job.

No. R-35—Plunger Clamp. Each.....\$.20

No. R-34—Set 4 Plunger Clamps. Price.....\$.65

HUDSON AND TERRAPLANE MAIN BEARING CAP PULLER







## BRAKE BLEEDER







The up-to-date, better way of servicing hydraulic brakes.

Furnished complete, with Adapter, Elbow and 28" (extra length) Rubber Hose.

THE SOLO BRAKE BLEEDER ENABLES ONE MECHANIC TO BLEED AN ENTIRE SET OF BRAKES AT ONE TIME IN LESS THAN 5 MINUTES. THE DEVICE CAN BE UNIVERSALLY APPLIED AS IT FITS THE DRAINOR OUTLET ARPERTURE OF THE CYLINDER, EQUIPPED WITH CHECK VALVE WHICH PREVENTS ENTRY OF AIR INTO SYSTEM WHILE BLEEDER IS IN OPERATION,



No. 58-S SET OF 4 IN METAL BOX 5.00

### Tube Benders



Copper tubing cannot be bent without kinking unless the Tube Bender is used. These simple yet practical benders do a perfect job and eliminate all possibility of distorting. They bend the tubing by hand to any desired shape without collapsing the tubing.

No.	SIZE	LENGTH	PRICE EA.
	1/4 5/16 3/8 7/16	7-1/2	\$0.24
752 753	5/16	п	
754	3/8	п	.24
755	7/16	n n	.27
754 755 756	1/2	"	.30

## AXLE STUB PULLER



No. 660 needs less

than ¼ of an inch

room to take hold!

Six tempered spring steel jaws bite into the stub as you tighten up on the handle and hang on like a bulldog, as you draw it out.

Saves its price in time and labor in just one broken axle job Useful in numerous other ways, such as holding or starting nuts or bolts in inaccessible places.



Utica Steel-Draulic Brake Plier



Drop forged from Alloy Steel. Heat treated and tempered in oil. For all cars equipped with steel-draulic brakes.

No. 516U STEELDRAULIC BRAKE PLIER \$1.45



Works efficiently on smaller many where long handles would be awkward.

Brake Spring Plier No. 182

No. 182 BRAKE SPRING PLIER.....\$1.20

### Star Nut Brake Tools



No. 301 for Bendix Brakes on most passenger cars and trucks. No. 302 for Bendix Brakes on Hudson and Essex cars.

Nos. 301 OR 302 TOOLS PRICE EACH \$0.48

### **Eccentric Brake Wrenches**



Wrench No.	Openings Milled	Length	Thickness Heads	Each
261 262	\$/6 & 1/4 5/6 & 3/8	9	7/62	\$ .84 .84



## Ford Brake Wrench No. 2333

For Models A, AA, B, BB and V-8
No.2333 FORD BRAKE WRENCH......\$0.78



"Van-Chrome" Ford V-8 Brake Wrench No. 2333V Improved Design — Special Offsets — Extra Long Reach

No.2333V FORD V8 BRAKE WRENCH......\$1.32



## "Van-Chrome" Brake Pedal Spring Hook No. 2381

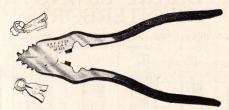
For Late V-8 Models

Brake pedal return springs are easily hooked up with this practical tool. Its 14" length and special construction adapt it particularly to the 1935 and 1936 Ford V-8.

No. 2381 BRAKE PEDAL SPRING HOOK .... \$1.08



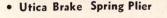
Brake Shoe Washer Spreader



Designed for fast opening of horseshoe type washer in brake work. Simply insert tool between ends of washer and spread it apart. A big time saver.

No. 533U BRAKE SHOE WASHER PLIER

\$1.50





New pattern for pleasure cars and trucks. Drop forged from Alloy Steel to take care of brakes with large or small springs.

NO. 525U BRAKE SPRING PLIER ..... \$1.85

### Horse Shoe Lock Ring Plier



Made to spread the snap lock-rings used so widely today on brakes, transmissions, differentials, pedal shafts, clu'ch shafts, fan pulley shafts and especially adaptable for spreading brake keys when removing them from the assembly. This New Piler is the only tool that spreads the ends readily and is especially adaptable for lock rings used on Chrysler hydraulic brakes. Toothed on the outside of the jaws to prevent any possibility of slipping. Will spread any lock washer up to 1½".

No 186 Horse Shoe Lock Ring PLIERS \$1.26

## Utica Hydraulic Brake Spring Cup Lock Remover



Hydraulic Brake Spring Cup Lock Remover in Use



With this plier you can remove the hydraulic brake spring lock in a jiffy. Simply grip the cap on the stud that comes through the brake shoe which has a spring lock. Give one-quarter turn and the lock is released. Return the cap lock to position by the same simple method. This tool prevents injury from flying springs and loss of parts. These fingers of steel make a simple, safe, quick-acting tool for this difficult job.

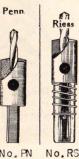
## THORSEN (T) TOOLS











No. PN No. BE No.CO No.RH No. DS









Stiles

Herman



Shepard-

Thomason



Star

No. RU

No. WC

No. SH

No.ST No.SR

	Co- bore	Drill	BE	RS	PN	SR	wc	ST
1 2 3	3/8 3/8	5 #10	\$1.00 1.00	\$1.10 1.10	\$1.00 1.00	\$1.50 1.50	\$1.50 1.50	\$1.40 1.40
3 4 5 6	3/8	#10 5	1.00 1.20 1.00	1.10 1.30 1.10	1.00 1.20 1.00	1.50 1.75 1.50	1.50 1.75 1.50	1.40 1.65 1.40
6	5/6 1/2	F-1/4	1.30	1.40	1.30	2.25	2.25	1.65

No.	Co- bore	Drill	RU	DS	RH	СО
1 2	3/8	\$ #10	\$1.75 1.75	\$1.00 1.00	\$0.90	\$1.00
1 2 3 4 5 6	1/8	5 32 #10	1.50 1.75	1.00	1.05	1.00
5	5/6	F-1/4	1.75 1.90	1.00	1.20	1.00

When ordering state symbol letters and numbers. \*Rush Nos. 1, 2 and 5 are furnished with Cutter on each end.

### EXTRA CENTER DRILLS

For Breeze, Riess, Penn, Star Davis, Research and Chicago

\$\frac{4}{3}"\ \text{Drills for } \frac{1}{3}"\ \text{ and } \frac{2}{34}"\ \text{ shank rivets.} \quad \text{\$1.56 Per Doz.} \\ \text{No. } 10 \text{ Drills for } \frac{1}{3}"\ \text{ shank rivets.} \quad \text{.1.92 Per Doz.} \\ \text{Letter F Drills for } \frac{1}{4}"\ \text{ shank rivets.} \quad \text{.65 Each} \end{array}

and Shepard-Thomason For W. & C., Rush

\$\frac{3}{4}" Drills for \frac{1}{6}" and \frac{3}{4}" shank rivets... \\$1.80 Per Doz. No. 10 Drills for \frac{3}{6}" shank rivets... \\$2.25 Per Doz. Letter F Drills for \frac{1}{4}" shank rivets... \\$.90 Each

# THORSEN TOOLS RIVET KNOCKOUT PUNCHES

Illustrations not shown for all types available.



Brake Band Rivet Punches are made of a high quality alloy steel to withstand the severe usage in automotive service station.

The following assortment of types and sizes are stocked and cover the popular riveting machines in the field. Other sizes and types can be supplied if a sample or complete description is furnished with the order.

with the t	nuel	. 5 50		Each
Breeze Breeze	No.	53 113	For Senior Models	\$0.80 .75
Chicago	No.	T-20	Quick Change	.70
Davis	No.	2	VI. IVII. III. III. III. III. III. III.	.60
Penn Penn	No.	6000	Short—For Model ALong—For Triple Duty	.60 .70
Raybestos	No.	25	Same as U. S. Asbestos No. 25.	.70
Riess Riess Riess Riess	No. No. No.	72 172	Short—1928 and Earlier Models Long—1928 and Earlier Models Long—1929 and 1930 Models Long—1931 to 1934 Models	.50 .75 1.50 1.25
Rush	No.	28	THE CHATLETTO TOCKEDS	.60
Shepard-Thom Shepard-Thom			Reverse	1.25 1.25
U. S. Asbestos	No.	25	Same as Raybestos No. 25	.70

## Petry and Brandt



SIZE: 5/32 x 5/16 Flat Head Rivets



**SIZE:** 5/32 x 3/8 Flat Head



SIZE: 3/16 x 3/8 Flat Head



SIZE: 3/16 x 3/8 Caper Head Rivets

## THORSEN (FT) TOOLS TIRE TOOL SECTION

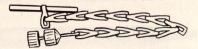


STANDARD DESIGN TIRE IRON, HAND FORGED WITH STRAIGHT AND CURVED ENDS. HIGH QUALITY TOOL No. 9KB TIRE IRON .....\$0.75



### TIRE TOOL

STANDARD DESIGN TIRE TOOL MADE OF HIGH QUALITY SPRING STEEL PROPERLY HEAT TREATED AND TEMPERED. No. 9AKC TIRE TOOL .....\$0.50



TIRE VALVE FISHING TOOL USED FOR FISHING VALVE STEMS THRU RIMS. SWIVEL CAPS PREVENT KINKING.
NO. 27KC TIRE VALVE FISHING TOOL, .... \$0.30



ZERK FITTING TOOL

USE THIS TOOL TO QUICKLY DRIVE IN ZERK FIT TINGS WHEN MAKING NEW INSTALLATION OR A REPLACEMENT.

No. 5KC ZERK FITTING TOOL ..... \$0.20



VALVE STEM CORE EZE OUT TO OPERATE THIS EZE OUT IN REMOVING BROK-EN VALVE CORES, SCREW BODY OF TOOL ON THE VALVE STEM, PUSH DOWN AND UNSCREW CORE BY TURNING THUMB SCREW TO THE LEFT. No. 12KC VALVE CORE EZE OUT .....\$0.35



DEFLATER FOR INNER TUBES THIS SPECIAL DEFLATER MAY BE USED FOR THE PURPOSE OF DEFLATING AND REMOVING VALVE STEM CORES. No.24KC DEFLATER.....\$0.15



TIRE TOOL AND PRY BAR STANDARD DESIGN HANDY TOOL SUPPLIED WITH RUBBER HOSE SECTION HANDLE. MADE OF HIGH QUALITY STEEL TO WITHSTAND HARD USAGE.
NO. 8KC TIRE TOOL................\$0.50



TRUCK TIRE VALVE BENDER QUICKLY BENDS TIRE VALVES TO THE EXACT ANGLE REQUIRED. MAY BE FASTENED TO WORKING

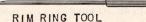
BENCH OR ON THE WALL.
NO. 22KG TIRE VALVE BENDER EA.....\$1.50

# THORSEN TOOLS TIRE TOOL SECTION

TRACTOR AND TRUCK PNEUMATIC TIRE TOOL

A TOOL ESPECIALLY DESIGNED FOR THE PURPOSE
OF BREAKING LOOSE EXTRA HEAVY TIRE WALLS
THAT BECOME STUCK TO RIMS.

No.23KC TRACTOR-TRUCK TIRE TOOL \$1.50



Designed for the quick and easy removal of Lock rings on all wire and disc wheels. Has sharp hook on end and is fitted with rubber hose section handle.

No. 7KC Rim Ring Tool......\$0.50



TIRE TOOL

STANDARD DESIGN TIRE TOOL AND PRY BAR EQ-UIPPED WITH RUBBER HOSE SECTION HANDLE. No. 9DKC TIRE TOOL.....\$0.60



TIRE TOOL

THIS TOOL ESPECIALLY DESIGNED FOR DROP CENTER COLLAPSIBLE RIMS.

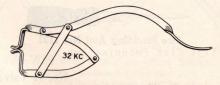
No.5DKC TIRE TOOL......\$1.00



VALVE NUT WRENCH

MADE TO FIT PRACTICALLY ANY WIRE OR DISC
WHEEL NUT.

No. 11KC VALVE NUT WRENCH......\$0.35



TIRE SPREADER

THE ORIGINAL DESIGN OF THIS TOOL ENABLES
THE OPERATOR TO HOLD TIRE WALLS OPEN WHILE
EXAMINATION IS BEING MADE. FAST AND SIMPLE
No. 32 KC TIRE SPREADER.....\$1.50

FIRESTONE RIM TOOL

THIS TOOL IS MADE WITH SPECIAL CURVES TO FACILITATE THE REMOVAL OF RIM RINGS. MADE TO EXACT SPECIFICATIONS OF SPECIALLY SELECTED STEEL PROPERLY HEAT TREATED TO LAST NO. 64KG FIRESTONE RIM TOOL......\$1.00

## THORSEN (Tr) TOOLS TIRE TOOL SECTION

"Van-Chrome" Tire Hammer No. 1130

Drop Forged from Chrome Alloy Steel

Especially designed for removing tires that cling stub-bornly to the rims. Extremely tough but not brittle elimi-nating the danger of chipping or flying pieces. All corners are rounded or bevelled so that they cannot damage tire

No. HAMMER ....... 1130 TIRE



Solid resilient rubber head that permits its practical use where a metal hammer would cause damage. It is intended for tire changes but is also popular for automotive body work, fender straightening and for use on materials that are subject to bruising and marring.

Length 15". Weight 1½ lbs.

No. 1133 TIRE MALLET.....\$0.92 No.

MALLET .....\$0.93 Multitip 5 in 1 Hammer Five Interchangeable Tips



The head tips and handle are securely locked in the drop forged head with a special screw and lock washer. Inserting new tips is a matter of seconds and provides a new hammer for the mere cost of the tips. Weight with two tips 1½ lbs. Nickel plated head, hickory handle.



### Tire and Rim Brush No. 1132

Curved Wood Handle

For Cleaning Rims and Casings

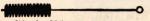
No. 1132 TIRE AND RIM BRUSH .....\$0.30

Tire Prodding Awl No. 1131 1131 TIRE PRODDING AWL. ..... \$0.18 No.

Cleans outside threads. Taps inside threads. Removes or inserts plunger. Made of high grade steel scientifically heat treated.

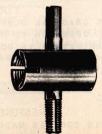
No. 41 VALVE TOOL \$0.15

#### TUBE BRUSH No. B-89



Black Chinese Bristle.

No. 41 Valve Tool



For cleaning Radiator Cores, Spark Plugs, Gas Lines, Valve Guides, Carburetors, etc.



## TIRE TOOL SECTION

Mark.
Spoon Type Tire Irons
Straight Pattern
Drop Forged from Tool Steel
No. 1126, 18" long. PRICE, each
No. 1126T Truck size 23" long.
PRICE, edch .9
Control of the Contro
Spoon Type Tire Irons Curved Pattern
Drop Forged from Tool Steel
No. 1127, 18" long. PRICE, eqch
No. 1127T, Truck size, 23" long.
PRICE, each 9
The Market Committee of the Committee of
"Van-Chrome" Side Ring Tool No. 1135
For New Firestone and Other Rims
PRICE, each
The state of the s
Special Rim and Tire Iron No. 1125
Long Leverage
PRICE, each
No. 1055X No. 1051X
Four-Way Rim Wrenches—New Series
Chrome Vanadium or Carbon Steel Extra Long for Wide Fender Clearance
Drop Forged in One Piece—No Welds
Openings 5%", 34", 13/16" and 76". Length 15". Weight 2 lbs. 12 ozs.
No. 1051X, Carbon Steel. Satin nickeled. PRICE, each \$1.0
Four-Way Rim Wrench No. 1050X
Drop Forged Solid—No Welds

Has the same efficient high quality features as No. 1051X illustrated and the same opening sizes but has 13" length. Satin nickel. Wgt. 2½ lbs
PRICE, each \$.99

Rim Wrench and Hub Cap Remover No. 1055X

SET No.



Universal Truck Rim Wrenches and Sets Eight Opening Sizes-Forged Solid-No Welds-Satin Nickel



SET No. 1152T, complete with one each of wrenches 1150A, 1150B 1150D and Leverage Bar 1150E. Weight 16 lbs.
PRICE, complete \$\lambda\_L\text{\text{off}} \text{\text{PRICE}}\$. \$4.62

\$0.90

## in 1 HAMME



No. 22-R with Rubber Head, 11/2 lbs... 1.75 No. 23-F with Fibre Head, 21/4 lbs..... 1.95 No. 23-R with Rubber Head, 21/4 lbs..... 1.95

## STEEL

#3F with FIBRE HEAD for heavy use in Machine, Body and Fender Shops, Garages, and for heavy double seaming of sheet metal, etc. 21/4 lbs. \$1.95 #3R with RUBBER HEAD for mounting tires, drawing rivets through heavy sheet metal, and used by Plumbers, Machinists, Cooperage and Wood Workers, etc., weight 21/4 lbs. \$1.95

AD-Fibre Head, 2" face..... No. .60 No. AA-Rubber Head, 134" face..... .50 AG Rubber Head, 2" face..... No. .60

# THORSEN (T) TOOLS

## LUBRICATING TOOL SECTION



GREASE GUN

ESPECIALLY DESIGNED FOR THE PURPOSE OF FAST FLUSHING OF HYPOID GEAR DIFFERENTIAL HOUS-INGS. MAY BE USED FOR SPRING SPRAYING AND FOR APPLYING GRAPHITE GREASE.

No. 26KC GREASE GUN...... \$3.50



### GREASE BAR

ONE OF THE HANDIEST GREASE BARS MADE FOR SHACKLE GREASE WORK. LONG TAPER CHISEL ON ONE END IS GROOVED TO REDUCE POSSIBILITY OF SLIPPING OUT. HAND FORGED FROM EXTRA QUALITY STEEL, PROPERLY HEAT TREATED AND TEMPERED.

NO. 1KC GREASE BAR, EACH . . . . \$1.50



SPRING LEAF LUBRICATING CLAMP WITH THIS TOOL IT IS UNNECESSARY TO DRILL HOLES THRU THE COVER AS THE TOOL WILL PUN-CTURE BY FORCING SCREW OPERATION. No. 18KC LUBRICATING CLAMP......\$1.75



#### SPRING LEAF SPREADER

TO OPERATE DRIVE SHARPENED END IN BETWEEN SPRING LEAVES. HAS RUBBER HOSE SECTION
HANDLE AND IS SUPPLIED WITH LONG THIN TAPER SO SPRING PRESSURE WILL NOT FORCE TOOL OUT. No. 19KC SPRING LEAF SPREADER......\$1.10



#### HUDSON-TERRAPLANE CLUTCH PLUG WRENCH

A HANDY TOOL FOR SERVICING THE CLUTCH PLUG NUTS ON ALL HUDSON AND TERRAPLANE CARS. A WRENCH WITH HEX AND SQUARE ENDS THAT FIT INTO RECESSED PLUG NUTS ON CLUTCH HOUSINGS No. 49KC HUDSON-TERRAPLANE CLUTCH WR. \$0.50



No. 190 GREASE BAR.....\$1.72

Front Spring Shackle Grease Bar No. 191

191 FRONT SPRING SHACKLE BAR. . . \$1.38

# THORSEN TOOLS LUBRICATING TOOL SECTION



FORD SHACKLE PRESSURE RAM

COMBINATION FORD SHACKLE ADAPTOR AND HIGH
PRESSURE RAM. DEVELOPS ABOUT 50,000 LBS.
PRESSURE TO SQUARE INCH. TO OPERATE: BACK
OFF GREASE RESERVOIR NUT, LOAD WITH GREASE
BY APPLYING GREASE GUN TO FITTING, THEN
SCREW RESERVOIR NUT UP TO BOOST PRESSURE.
THE ZERK FITTING IS MADE WITH SPECIAL
GROUND BALL CHECK TO HOLD BACK PRESSURE.
REMOVABLE EXTENSION BARREL, MAKES THE TOOL
ADAPTABLE TO ALL MAKES OF CARS AND TRUCKS
BY THE ATTACHMENT OF THREADED TIP OR ELBOW.
No. 4AKC SHACKLE PRESSURE RAM . . .\$3.50



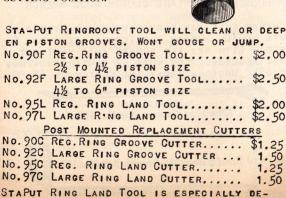
SPECIAL LUBRICATION NUTS
TO USE THESE SPECIAL NUTS, UNSCREW STANDARD NUTS FROM BOUT THRU CENTER OF FRONT
AND REAR SPRINGS, SCREW THEM ON IN PLACE
ATTACH GREASE FITTING AND APPLY GREASE GUN
TO FORCE GREASE UP. GET RID OF SQUEAKS IN
THE EASY QUICK WAY BY USING THESE NUTS.
NO.5BKC PAIR FOR FRONT AND REAR V8 SPRINGS
SPECIAL LUBRICATION NUTS, EA.PR
)
SPECIAL NUTS, PER PAIR.....\$0.25

## STA-PUT BING GROOVE TOOL

STIP I WIND TONI

SIIIG LIIID TOOL

HAND TURNING TOOLS THAT HOLD TO CONSTANT PRESSURE CUTTING POSITION.



SIGNED TO CHAMFER AND TO CUT BACK LANDS

## LUBRICATING TOOL SECTION

HOT-SHOT GREASE TOOL

DRIVE TAPERED END OF TOOL
BETWEEN LEAVES OF SPRING
ATTACH GREASE GUN TO
FITTING. EQUIPPED
WITH GENUINE ALEMITE HYDRAULIO
FITTING
No. 502 Hot Shot
GREASE Tool,
EA....\$0.80

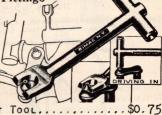


CORRECTLY PROPOR-TIONED FOR THE NEW SERIES 1/4 x 28 THREAD NOW USED ON FORD, CHEVROLET, PLYMOUTH, ETO.

No. 52R \$0.55 No. 51R FOR REG. FITTINGS \$0.65

-For Drive-in Fittings

FORGED STEEL JAWS
DIG UNDER SHOULDER OF FITTING, A
TAP HAMMER LIFTS
IT OUT, HANDLE
END RECESSED TO
FIT OVER END FOR
INSERTING.



No. 21R Nok-IN-OUT TooL.....\$0.

## Spring Greasing Chisel

No. 46W

A Sharp-Pointed Chisel with just the right taper to drive easily between spring leaves and spread them for greasing. Easy to drive out due to the bent end. Hand-forged from tool steel, cadmium plated. Length 9", ½" Octagon stock. Weight, 8 oz.

No. 46W SPRING GREASING CHISEL .... \$0.65



"Van-Chrome" Drain Plug Wrench No. 193

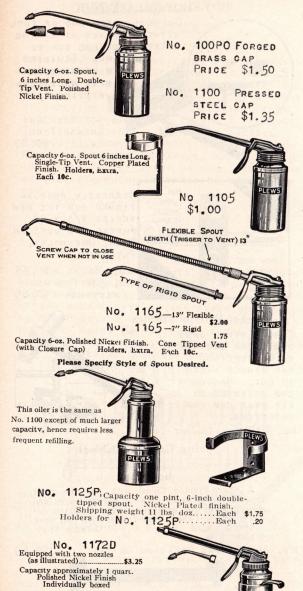
Ten Tools In One For All Female Plugs
No. 193 Drain Plug Wrench ..........\$1.02



"Van-Chrome" Drain Plug Wrench No. 194
Seven Wrenches In One For All Male Plugs

No. 194 DRAIN PLUG WRENCH ...................................\$1.14

## FORCE FEED OILERS



Models No. 100, 1100, are great favorites with mechanics who have to use an oiler frequently. The outer cone-tip on models 100 and 1100 has a small orifice to project a fine stream of oil. The inner tip has a larger aperture if a heavier discharge is desired.

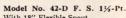
Model No. 1105 is intended primarily for personal use of the car owner. Single tip vent.

PLEWS

Model No. 1165 with flexible spout in place of the outer cone-tip is fitted with a screw cap so that it may be carried in a toolbox without leaking. This Model No. 1165 makes a very useful and convenient oiler for servicing electric refrigerators, oil burners, computing machines, cash registers, etc., and is supplied with a detachable spout of either the rigid or flexible type.

# THORSEN (T) TOOLS

## SHOCK ABSORBER OILERS



With 18" Flexible Spout,
Detachable nozzle.....Each \$2.40

18" FLEXIBLE - DETACHABLE NOZZLE

Model No. 60D F. S .- 1-Quart With 18" Flexible Spout,
Detachable nozzle .....Each \$3.00

Nickel Plated Finish



### Prices No. 45D-1-Quart

With 11"	Rigid Det.	Spout	Each	\$2.35
With 16"	Rigid Det.	Spout		2.60
With 26"	Rigid Det.	Spout	Each	2.75
With 18"	Flex. Spt.,	Det. nozzl	e Each	2.75

In ordering please specify type of spout desired.



#### Model 45D -1-Quart

(Shown with 11" Rigid Detachable Spout) Nickel Plated Finish



No. 3320 3/4-Pt. 5-in. spout

Prices No. 45D—1-Ouart	
11" Rigid Det. Spout Each \$2.35 16" Rigid Det. Spout Each 2.60	-
26" Rigid Det. Spout Each 2.75 13" Arched Spout Each 2.75	R



No. 3331D-3/4-Pint, 10" Spout, each\_\_\_\_\_\$1.20 No. 3336D-1-Pint, 10" Spout, each\_\_\_\_\_\_ 1.40 No. 3376D—1½-Pint, 10" Spout, each\_ 1.60



No. 3330 Pt. 9-in. spout 3/4-Pt. 1 Doz. Carton-10 lbs \_\$1.00 Price each.

The pump consists of two brass tubes, the lower one telescoping the other. Cadmium plated steel ball valves, bronze valve springs. springs.



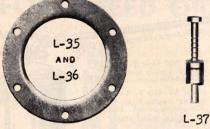
The cone-shaped tip seats in oil-hole and directs the oil into the bearings instead of permitting it to spill back over the outside. Makes lubrication certain and leaves machines clean.

#### A NEW FEATURE

With this new Coupler Union any 34-Pint size Plews Oiler can be attached to a common M.M. Oiler body. Price 5c each.







## THE KEY TO FUEL PUMP PROFITS

### CURE VAPOR LOCKED CARBURETORS

A great percentage of fuel pump and so-called carburetor trouble is caused by lowered fuel pump capacities due to wear, and improper adjustments. This trouble shows itself in motor lag, hard starting, etc.

The trouble particularly vapor lock may be cured with the installation of an ARCHER'S SHIM. The ARCHER'S SHIM pictured in the illustration at the left builds up the stroke of the fuel pump and increases the vacuum and capacity (without increasing the pressure) and adds longer life to the fuel pump diaphragm. This shim is the only method known to fuel pump specialists that can be guaranteed to cure vapor lock in high altitudes and hot weather.

The shim is manufactured of special die cast metal. Installation is simple and safe. Installed like an ordinary gasket. Two sizes fit all standard fuel pumps.

L-35	for Passenger Cars.	\$0.50
L-36	for Trucks	.75
L-37	as illustrated	\$0.50

Test fuel pump efficiencies with the Lodi L-37 calibrated fuel pump gauge. Simply installed through the top of the fuel pump. Easily operated. Permits customer and operator to see the true efficiency of the pump without removing it from the car. Test tuel pump for capacity vacuum and efficiency. Opens the door to replace worn fuel pump parts at a profit.



## FENDER AND BODY SETS



No. 415.W

#### Master Mechanics Set

Consists of Hammers Nos. 708, 714, 718, 719, 720, 727; Dollies Nos. 463, 465, 466, 469, 471: Spoons Nos. 80, 81, 96; File Frame No. 90; Bending Iron and Hinge Tool No. 87; Steel Tool Chest and Tray No. 426.

16 pieces in Steel Tool Chest. Weight, 38 lbs.

No.415W FENDER AND BODY SET..... \$27.00

No. 417 W

Same set as No. 415W except that Dollies are drop forged. Contains Dollies Nos. 431, 433, 436, 437 and 438.

16 pieces in Steel Tool Chest. Weight. 38 1/2 lbs.
No.417W FENDER AND BODY SET.....\$29.40



No. 414 W

### Craftsman Set

Consists of Hammers Nos. 710, 719, 720, 727; Dollies Nos. 463, 466, 469, 471; Spoons Nos. 80, 96; File Frame No. 91; Bending Iron and Hinge Tool No. 87; Steel Tote Tray No. 419.

12 pieces in Steel Tote Tray. Weight, 27½ lbs.
No.414W FENDER AND BODY SET......\$19 00
No. 416 W

Same set as No. 414 W except that Dollies are drop forged. Contains Dollies Nos. 431, 433, 436 and 438.

12 pieces in Steel Tote Tray. Weight, 26 lbs.

No. 416W FENDER AND BODY SET......\$20.96

## FENDER TOOLS



No. 460



No. 461



No. 462



No. 463



No. 464



No. 465



No. 466



No. 467



Nc. 468



No. 469



No. 470



No. 471



No. 472



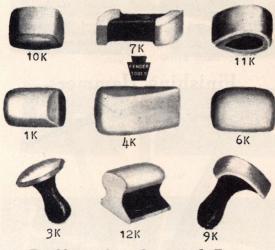
No. 473

MODERN BOLLIES DESIGNED TO FIT THE LATE
FENDERS AND BODIES

CHANGES IN AUTOMOBILE BODY DESIGNS HAVE CREATED A DEMAND FOR NEW DOLLIES. ILLUSTRATIONS INDICATE A DOLLY FOR EVERY CONCEIVABLE ANGLE, CURVE OR CONTOUR ON THE NEW CARS.

No.	TYPE	WT. LBS.	PRICE
460	MED. CROWNED	3-1/8	\$1.04
461	DBL. END CROWNED		1.24
462	GENERAL PURPOSE	2-7/8	1.40
463	CONTOUR	2-15/16	1.20
464	Eee	2-5/6	1.20
465	TOE	2-7/16	1,20
466	RADIUS	2-1/2	1,20
467	HIGH CROWN. HEEL	2-3/4	1.20
468	TURRET TOP	4-1/4	1.40
469	PEAKED FENDER	2-5/8	1.20
470	G M REAR FENDER	2-3/4	1.16
471	LONG DBL. END	3-1/4	1,16
472	HEEL	2	1,20
473	SPECIAL	2-1/2	1.16

## BODY & FENDER TOOLS



## Dollies for Special Jobs



No. 5 K

A special curved dolly for work on the newer type bodies.



No. 13 K This convexed shape will fit the new "Arched" fenders.

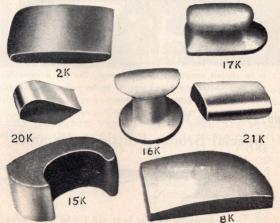


No. 14 K

An indispensable dolly for Fender Rolls on new models.



No. 18 K Special wedge dolly for general use on new type cars.



Dollies are made of high quality alloy steel — ground and polished with utmost care. Perfect angles, contours, etc., furnishing every curve to service modern metal construction.

Average Weight 2<sup>1</sup>/<sub>4</sub> to 2<sup>1</sup>/<sub>2</sub> Lbs.

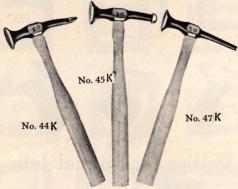
ANY DOLLY LISTED ABOVE, price each.......\$1.25

# THORSEN TOOLS Turret Top Dolly



A recent Keystone development. The Turret Top Dolly is made of cast steel, handsomely finished. For use on the new model cars having turret tops and on fender wells.

## Finishing Hammers



NO. 44K—A high quality, HAND FORGED Hammer, with large slightly crowned face for finishing. Oval cross pien on the opposite end of the head has large strong eye. Handle is of best grade Hickory. Hammer is carefully balanced and really "has the feel."

No. 45K Identical with No. 44 except small end of head has ball pien.

No. 46K Identical with No. 44 except small end of head has cross pien.

No. 47 K Identical with No. 44 except small end of head is pointed.

Each.

\$2.00



A new and improved Hinge Tool of forged steel, perfected by Keystone. The width and depth of the slot permits the tool to be slipped completely over the hinge. The bar is movable and may be taken out and inserted in the hole at the top of the head to secure greater leverage.

No.49K HINGE TOOL .....\$2.00

## Special Bronze Finishing Hammer



—Adaptable both for Body and Fender work. Head is carefully finished and has sufficient weight to give the best results without loss of proper balance. Handle is of Hickory.

# THORSEN TOOLS FENDER HAMMERS

















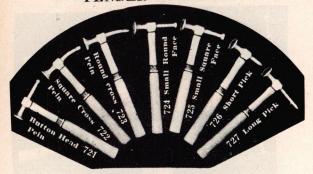




MANY NEW TYPES OF HAMMERS ARE SHOWN ALL OF THEM RECENT DESIGN TO MEET NEW CONDITIONS IN THE BODY AND FENDER REPAIR FIELD. HARD FACES TEMPERED FROM SPECIAL ANALYSIS ALLOY STEEL GUARANTEED NOT TO BREAK DOWN OR CHIP

TYPE HAMMER WT	HANDLE OZS	PRICE
LT. WT. FIN.	6 ozs	\$1.00
LT. WT. FIN.	6 ozs	1,20
LT. WT. FIN.	6 ozs	1,20
LT. WT. FIN.	12 ozs	1.20
BUMPING	14 ozs	1.30
DINGING	13 ozs	1.60
V OFFSET DING	13 ozs	1.80
W HVY, DINGING	18 ozs	1.60
ROUGHING OUT	27 ozs	2.00
V OFFSET FIN.	12 ozs	1.70
	LT. WT. FIN. LT. WT. FIN. LT. WT. FIN. LT. WT. FIN. BUMPING DINGING V OFFSET DING V HVY, DINGING ROUGHING OUT	LT. WT. FIN. 6 ozs LT. WT. FIN. 6 ozs LT. WT. FIN. 6 ozs LT. WT. FIN. 12 ozs BUMPING 14 ozs DINGING 13 ozs V OFFSET DING 18 ozs V Hvy, DINGING 18 ozs V ROUGHING OUT 27 ozs

# THORSEN TOOLS FENDER HAMMERS









No.	TYPE HAMMER	WT	HANDLED	PRICE
718W	FLANGING		13 ozs	\$1.80
719W	SQ OFFSET		12 ozs	1.40
720W	ROUGHING OUT		22 ozs	1.70
721W	BUTTON HO PEIN		9 ozs	1.80
722W	SQ CROSS PEIN		9 ozs	1.80
723W	RND CROSS PEIN		9 ozs	1.80
724W	SMALL RND FACE		9 ozs	1.80
725W	SMALL SQ FACE		9 ozs	1.80
726W	SHORT PICK		9 ozs	1.80
727W	LONG PICK		9 ozs	1.80

## **Insulite Tip Hammers**



INSULITE TIPS ARE TOUGH, RESILIENT AND RE-PLACEABLE. USED EXTENSIVELY FOR BODY AND FENDER WORK.

No.	DESCRIPTION	PRICE
152	8 OZ HAMMER, 1" DIAMETER TIP	\$1.12
152T	EXTRA TIPS. EACH	.32
153	12 02 HAMMER, 1-3/16" DIA TIP	1.24
153T	FXTRA TIPS. EACH	.36
154	16 OZ HAMMER, 1-3/8" DIA TIP	1.52
154T	EXTRA TIPS, EACH	. 48
	Fiber Mallets	Each



No. M1, size 1½ x3½ in., Wt. 5 oz. \$0.85 No. M2, size 2 x4 in., Wt. 8 oz. 1.10 No. M3, size 2½ x4½ in., Wt. 1 lb. 1.20

No. M4, size 3 x5 in., Wt. 1½ lb.... 1.60 No. M5, size 3½x5½ in., Wt. 2% lb.... 2.00

# THORSEN TOOLS GENUINE

## Vixen Curved Tooth Files

VIXEN Flexible Files, are tavorable known in the auto body building trade, and are particularly adapted to all other types of sheet metal work. They have teeth on both sides and should be attached, when in use, to a back,



Genuine VIXEN Flexible Standard Cut File



Genuine VIXEN Flexible Smooth Cut or "Finishing File

## 

Genuine VIXEN Narrow Flexible File



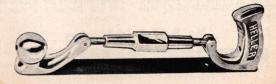
How It Is Used on Bearing Work. Shell File Genuine VIXEN Hall-Round Standard Cut File (Shell Type)





### SPECIAL CURVED VIXEN FILE

14" STD CUT VIXEN, EACH \$2.15	
14" SMOOTH CUT VIXEN, EACH 2.50	
16" STD CUT VIXEN, EACH 2.56	,
16" SMOOTH CUT VIXEN, EACH 2.90	)
14" STO CUT NARROW VIXEN, EA 1.95	5
14" STD CUT SPECIAL CURVE, EA 2.15	5
7" STD CUT NARROW SPEC CURVE, EA. 1.50	)
14" STD CUT HALF ROUND, EA 2.17	7
14" STO CUT MOULDING VIXEN, EA 2.17	,



No.HE-1 ADJUSTABLE FILE HOLDER, EA. \$3.00
POLISHED ALUMINUM AND
SPRING STEEL FILE BACK.





No. HE-2 Spec Curve Vixen File Handle, Ea.....

\$1.50

## Midget Curved File



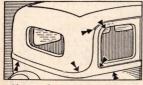
The Midget Model No. 61 was developed to meet the demand for a curved file to smooth small rounded surfaces on doors, windows, etc., which are hard to get at. Handle is of hardwood, polished and shaped to fit the hand. The file is 7" long and has a keen smooth cutting edge that will give exceptionally long wear. Handle may be easily detached

No. 61F Midget Curved File, Including Handle, \$1.75



The handiest Holder and File made, for expert metal workers. Smooths the rough spots in narrow curves, ledges, etc., without damage to other parts. Accommodates flat, oval, or your own specially designed files. Very useful for hundreds of other operations. Blades Measure 3 inches in length.

No. 52 F All-Metal Holder (without File)	25
No. 53F Blade, Flat Egg-Shaped, Safe Edge	75
No. 54F-Blade, Oval, Shell	75
No. 55F-Blade, Flat, Regular Width	75
No. 56F-Blade—"L" Shaped Edge	75
No. 57 F-Blade—Canoe Shape, Oval Face	75
No. 60F-Complete Set. Handle 5 Blades 5.0	



Short, sharp curves around windows, ledges, etc., are easily smoothed with this handy little tool.



The new fenders have raised seams similar to those illustrated and the Reveal File does the job nicely.

## No. B-87 Acid Brushes



\$ .25 doz. 2.00 per. gross

A well made, but inexpensive, brush for applying soldering acid. Body and radiator repair shops will appreciate the uniform fill and quality of bristle. Length overall 5%".



## FILE Handles

POPULAR SHAPES FOR 14" FLAT FENDER AND BODY FILES. LETTER "A" DESIGNATES FLAT BASE FOR FILES AND LETTER "B" DESIGNATES SLIGHTLY CURVED BASE FOR FILES.



No. 39 A OR B FOR 14" FILE
NARROW STREAM LINED HANDLE ALLOWING FILE
TO OVERLAP FOR CLOSE WORK. PERMITS EASY
WORK BETWEEN BUMPER AND FENDER



No. 12 A OR B FOR 14" FILE



No. 1E A OR B FOR 14" FILE



No. 2 A OR B FOR 14" FILE



No. 6EA FOR SPECIAL CURVE OR NU-ANGLE FILE



NO GEE FOR SPECIAL CURVE OR NU-ANGLE FILE

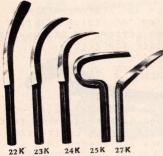


No. 5M FOR NARROW (5/8") 14"FILE.

ANY TYPE OF FILE SHOWN ABOVE, EACH ... \$0.75

GLOSSY FINISH HARDWOOD FENDER AND BODY FILE HANDLES ARE RAPIDLY, REPLACING METAL HOLDERS BECAUSE OF EASIER HANDLING AND LESS WEIGHT AND THE VARIETY OF HANDLE SHAPES (DESIGNED FOR EASY WORK) THAT CAN BE OBTAINED.

## Body & Fender Spoons



Keystone Spoons are hand forged from the best grade of selected The working steels. faces are ground to accurate dimensions and are polished to smooth, uniform contours. Tool shapes are the result of extensive research, developing tools to meet practically every requirement of body and fender repairing.

No. 22 K.Has long, gradual curved face, tapered to thin edge at the end. Useful in general body work, each \$1.50 No. 23 K.Has shorter, more curved face than No. 22 but also tapers toward the, end. Used in places such as back corners of the auto body, each \$1.50 No. 24 K.Has very short curve but no crown. Useful in working out quarter panels, each \$1.50 No. 25 K.For working over the front fender bracket, each \$1.50 No. 27 K.For frame work on doors and behind ledges, each \$1.50



SOLDER PADDLE TUOL

EVERY BODY AND FENDER MAN WILL WANT THIS NEW TOOL BEING OFFERED FOR THE FIRST TIME IN THIS CATALOG. THE GROUP CONSISTS OF A METAL HANDLE MADE TO SLIP INTO A GROOVE PROVIDED ON THE TOP OF HARDWOOD PADDLES. WHEN WOODEN PADDLES BURN OR BECOME USELESS, NEW ONES CAN BE QUICKLY ATTACHED TO THE HANDLE TO TAKE THE PLACE OF THOSE DISCARDED

NO. 1BP SQUARE END PADDLE

NO. 2BP CURVED END PADDLE

NO. 3BP ROUNDED END PADDLE

NO. 5HP METAL HANDLE FOR PADDLE

NO. 10PS SET 3 PADDLE & HANDLE

Dor-Sta

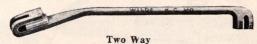
## THE DOOR CHECK THAT HOLDS PANEL BODY DOORS SECURELY OPEN

No. 18DS DOR-STA for wide, light or heavy doors over 18" width. Length, 20" overall; Price \$3.00. No. 12DS DOR-STA for narrow, light or heavy doors, under 18" width. Length, 131/4" over all. \$3.00.

SEND FOR COMPLETE INFORMATION SHEETS



FENDER TOOLS & SETS



Bending Iron and Hinge Tool

Drop forged from spring steel and properly tempered. Used in straightening fender aprons and correcting sprung hinges. Has slot in one end to take care of aprom when working under headlight bracket or other difficult places Cadmium plated finish. Length 15 inches

NOT GUARANTEED

No . 87W BENDING IRON AND HINGE TOOL \$1.52



Made of 5/16-inch x 2-inch spring steel, tempered. Length 15 inches.

No. 88W FENDER FLANGE TOOL. .... \$1.40



For holding splits in fenders, bodies, and other light materials in position while welding. Has wide jaw opening to fit all types of fenders. Clamps into position leaving both hands free.

## Door Hinge Pin Pusher

Cadmium plate finish. Weight, 31/2 lbs.



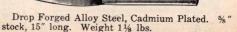
Hinge Pins are very difficult to remove, especially on late model cars where hinges are close to bodies. The above tool has two tempered guide pins and a heavy fine thread screw. A small starter pin is first used to push hinge pins flush with hinge. Pins of the proper length are then inserted in the tool and the Hinge Pin pushed out. Two sizes of collars are furnished to guide various size Pin

No. 68. Door HINGE PUSHER ........\$6.65

## Rolled Edge Fender Straightening Tool

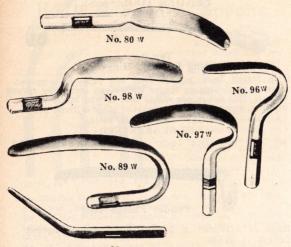
For prying out and alligning rolled edges on fenders, when these edges have been smashed against the fender. Sharp hook shaped end gets in so they can be pried out and dollied. Cadmium plated. Length 9" Weight, 8 oz.

No. 459W FENDER STRAIGHTENING TOOL.. \$0.48
GLASS REMOVING CHISEL



No. 93W GLASS REMOVING CHISEL..... \$1.00





No. 81 w

BODY WORKER SPOONS ARE HAMMER FORGED FROM ALLOY SPRING STEEL. CORRECTLY TEMPERED WORKING FACES GROUND AND FULL POLISHED

No.	Size, Ins. We	eight, Ll	s. Price
80 W	9 inches long, 3 inches wide.	1	1.20
81 w	10 inches long, 2 inches wide.	9 ounce	.80
98 W	11½ inches long, 2¼ inches wide.	11/4	1.40
97 w	Working face 6"x24", length 6".	11/4	1.40
89 W	Working face 9½"x2%", length 4¾".	13/4	1.40
96 W	Working face 5½"x15%", length 6".	11/2	1.48

## FORGED FENDER DOLLIES







No.433 TOE DOLLY No.436 No.437 OBLONG







No.434 GEN.PUR. No.438 Nos.430 &431

SUPERFINE DOLLIES HAMMER FORGED AND CARE-FULLY HEAT-TREATED. FACES GROUND TO FULL POLISH. CADMIUM PLATED

No.	WEIGHT	PRICE
430	1-3/8 LB	\$1.36
431	1-7/8 "	1.68
433	2-1/2 "	1.68
434	2-3/4 "	3.28
436	2-1/2 "	1.68
437	2-1/2 "	1.68
438	3 "	1.68



## Door-Hinge Pin Remover





Great time and labor saving device for removing rusted or frozen door hinge pins. Also installs pins. Eliminates danger marring Paint. Tool comes fully equipped with three Adapters, Extractor Bar and Special Ratchet.



No. 17WL HINGE PIN TOOL ..... \$3.1

### EXPANSION LUBRICATED HINGE PINS



ALL DOOR RATTLES AND SQUEAKS ARE CAUSED BY WORN HINGE PINS THAT ALLOW THE DOOR TO HANG LOOSELY RESULTING IN WEAR OF THE DOVE TAIL, LATCHES, ETC. IF THESE HINGE PINS ARE INSTALLED BEFORE THIS WEARS TOO FAR, RATTLES AND SQUEAKS WILL NEVER OCCUR.

AFTER OLD PIN HAS BEEN REMOVED, SELECT THE PROPER SIZE PIN, REMOVE THE ADJUSTMENT SCREW AND TAPERED PLUG AND FILL THE BODY OF THE PIN WITH GOOD CHASSIS LUBRICANT. BEFORE REPLACING THE PLUG AND SCREW, DROP THE PIN IN THE HINGE; NEXT REPLACE THE PLUG AND ADJUSTING SCREW AND TIGHTEN UNTIL THE DOOR IS HELD SECURELY.

THESE PINS CAN ALWAYS BE EXPANDED TO TAKE UP WEAR IF ANY SHOULD DEVELOP.

#### PIN SIZES

Length

Diam.

Pin		Under Head	
1/4 "	x	1-13/16"	
9/32"	x	1-13/16	

9/32" x 2- 1/16" 9/32" x 2- 5/16"

9/32" x 2- 9/16"

5/16" x 1- 7/8 " 11/32" x 1-13/16"

11/32" x 2- 1/8 "

11/32" x 2- 5/16"

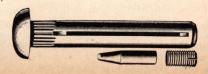
er PACKING

All Pins are regularly packed twelve of a size in a sealed box.

#### DEALER NET PRICE ALL SIZES

27c per Pin in sealed boxes of 12 Pins of a size.

**30c** per Pin in less than full boxes.





WILL PERFECTLY SMOOTH FENDERS, DOORS, PANELS, COWLS, TRUNKS, HOODS, TURRET TOPS, TIRE COVERS, RADIATOR SHELLS, LAMPS, ETC. METAL THICKNESS COMPENSATOR PERMITS QUICK AND POSITIVE TENSION ADJUSTMENT FOR DIF-FERENT GAUGES OF METAL.

AIR PRESSURE ADJUSTING SCREW PERMITS CLOSE AIR CONTROL.

FLOATING POWER GUN BARREL ALLOWS TOOL TO MOVE EASILY.

TEN THOUSAND BLOWS PER MINUTE. VIBRATIONS ARE TRANSMITTED THROUGH THE RAM WHICH VIB-RATES ON THE WORK.

VALVELESS AIR HAMMER, REVERSES THE DIRECT-ION OF THE PISTON AT TOP AND BOTTOM.

FLOATING DOLLIES OF SPECIAL DESIGN RIDING ON BALL AND SOCKET SWIVEL. AUTOMATICALLY FOLLOW THE CONTCURS. NOT NECESSARY TO GUIDE. INSTANTANEOUS FOOT CONTROL

WEIGHT 11% POUNDS



Complete with two frames, twenty-five feet of air hose including foot throttle with all connections, and five special dollies (Shipping weight including shipping case 31 fbs.)

COMPLETE INFORMATION SHEETS SUPPLIED ON RECEIPT OF REQUEST. No. 89WL PNEUMATIC VIBRATOR. . .... \$89.00

# **U.S. SANDERS**



## 7" HEAVY-DUTY RIGHT-ANGLE SANDER IS AIR CONDITIONED

Equip now with this New U. S. 7" Heavy-Duty Sander. It actually blows the sanding dirt away from the operator. This is just one of its new features. Body and fender work will be in big demand this season and you will have many uses for this unique Right-Angle Sander.



NEW FEATURES: Air Cleaner—New Air Outlets (blows air away from operator)—BALL BEARINGS SEALED FROM DUST—DUST-PROOF SWITCH.



Furnished in coarse, medium or fine grain. Suitable as follows: Grade D5 Discs for metal.

Grade K5 Discs for wood.

Nos. 16, 24 and 36-K5 for removing paint and varnish.

GRADE	7-Inch Discs List Price Each	9-Inch Discs List Price Each	
180-DS	\$.16 N	\$.22	
150-DS	16	22	
120-DS	16	22	
100-DS	16	22	
80-DS	16	22	
60-DS	17	23	
50-DS		24	
36-DS	20	26	
30-DS	20	26	
24-DS	20	26	
16-DS	26	34	
120-K5	16	22	
80-K5	16	22	
60-K5	17	23	
50-K5	18	24	
36-K5	20	26	
30-K5	20	26	
24-K5	20	26	
16-K5	26	34	



#### SPINDLE EXTENSION

For attaching Cup Grinding Wheel and Wire Wheel Brush to Sander. Threads, on Sander spindle in place of flexible pad. Spindle extension for 7" and 9" sanders. Price \$2.00 A

Will fit all size sanders.

U. S. 4-SPEED FLEXIBLE SHAFT MACHINE



Type No. 9000—½ H. P. \$135.00 4 Speeds 1500, 1900, 2500, 3600 R. P. M.

Complete with No. 9001 Ball Bearing Angle Head Straight Hand Piece, and Replacement Core.

Can be furnished for 110-220 volt. 25 to 60 cycle, 1, 2 or 3 phase A. C.;

Add \$6.00 to above for any A. C. motor other than 110-60-1 ph.,

Shipping weight machine complete with angle head and extra core, 180 lbs.

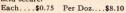
### U.S. FLEXIBLE DISC PAD



3"	\$2.50
5"	5.50
7"	7.00
9"	. 9.00
Disc pads fit all size	Sanders.

## Wetordry Rubber Block

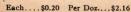
This flexible rubber sanding block gives the reinforcement needed on surfaces requiring hard pressure. Operator's hand does not touch the abrasive. Paper trims to fit without waste, and is held secure.





## Wetordry Felt Pad

For reinforcing Wetordry in such a way as to eliminate high-lights in the work from finger pressure. Made with an overflap to protect the operator's hand.







SMALL, POWERFUL REPAIR Weighs but frames, rebut 57 pounds. Can straighten ender dents, spread out jamme jammed



adding to overhead... and at an amazingly small investment in equipment. It enables you to handle all kinds of body and fender work... is so fast and effective that every job shows longer profits than are possible with other methods. The Hydrau-Kit consists of a hydraulic power unit with a capacity of 4,000 pounds... and 27 parts which apply its tremendous power from practically any angle. Straightens "sprung" door frames, crushed bodies, corners, cowls, windshield openings, bumper bars, fenders, etc. Price, complete ... packed in strong metal box on roller easters

**PUSHES** 

STRAIGHTENS

FROM

BENDS

**PRESSES** 



6			Z
M =			A TE
RATE			WHI
H JPI13	4000 lb. Capacity Hydraulic	Unit	B O
HJ19	Knuckle Joint Connection		OME
H J21	12" Extension Pipe		NOF
H J22	5" Extension Pipe		سولنا لنا
H J23	11/4" Close Nipple		WH
H J24	Jack Head with 3 ft. Chain a	and Grab Hook	3
H J25	90° Angle Base		
H J26	4" Radius Base	COMPLETE	
H J27	31/2" x 61/2" Flat Base	INSTRUCTI	ONS
H J28	Spring Spreaders	SUPPLIED	
H J29	2" Radius Base	Control of the second of the second of the second	
H 130	V-Block Base	EVERY KIT	
H 131	3 ft. Chain with Grab Hook		
H J32	Fender Clamp		

Serrated Head H 733 H J34 8" Hydraulic Pump Handle H J35 Extension Pipe Coupling

# THORSEN TOOLS HYDRAU SPRING SPREADER

FOR REPLACING OF FORD SPRINGS



Every Ford dealer needs one of these handy tools for replacing springs

Includes hydraulic unit and handle as supplied in complete Hydrau-Kit and following attachments: two J28, two J22, one J21, one J23, one J35. All parts necessary for spreading springs on Models "T", "A", "V-8" Fords. Shipped as a complete unit in carton. Shipping weight 19 lbs

No. 40SS HYDRAU SPRING SPREADER \$11.90

## **Steering Wheel Puller**

Universal for All Steering Wheels





Pulling Four Spoke Wheel

Mechanics will find this Puller a big factor in time and labor saving and perfect workmanship on all steering assembly work.

The pulling arms are adjustable to any position on the hub for a straight, positive pull on either three or four spoke wheels.

The steel ring against which the actual pulling is done has three rubber cushions which protect the wheel from marring, scratching and cracking no matter how great a strain is placed on the tool. A special revolving nipple on the end of the forcing screw eliminates any danger of damaging the shaft and avoids friction.

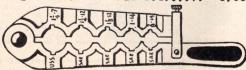
Length of arms  $5\frac{1}{4}$ ". Weight 3 lbs. Finished in satin nickel..Individually boxed.

No. 835H STEERING WHEEL PULLER....\$6.75



Sizes of openings,—5%", 34", 7%", 1", and 11%"

No. U131 Pass. CAR AXLE DIE...... 6.00



Fleet Owners, Bus Operators, County and State Road Departments all need this tool. Weight 234 lbs.

It has five sizes:

1/8" x 14, 1" x 14, 11/8" x 12, 11/4" x 12, 11/4" x 7 threads.

No. U131A TRUCK AXLE DIE..... 6.50

# THORSEN (T) TOOLS

## U. S. VALVE SEAT GRINDING SET



5	Self	cente	ering	pilots-		
	5 "	11"	3/0 "	Ford	A	

A and V8.....\$4.00 each

1 Wheel dressing tool \$20.00

2 Grinding wheel holders ......\$4.00 each

2 of thomic wheels (1 ½", 1 ½", 1 ½", 1 ¼", 1 ½", 2", 2¼" 2½")
2 30° wheels (1 ½", 1 ¾")
1 20° wheel (1 ¾")
Any standard wheels can be substituted for above.
1 Box shown above \$9.00

No. 2000 VALVE GRINDING SET ..... \$ 98.00



U. S. Flexible drive for use with 1/4" drill ... ...\$1.50



The U. S. Angle Drive attachment for use with hispeed driver Easily attached and is indispensable for those hard-to-get-at valve seats. Complete ready for use \$13.00

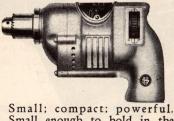
Extra diamond for new 2000 wheel dresser \$3.00

Universal Set No. 2000 will quickly and accurately recondition any type valve seat. The accuracy is within .001". The vibrating action is built into the set.



A sturdy 1/4" drill amply powered for general purpose drilling for intermittent service.

U. S. 1/4" Automatic 2000 R. P. M. \$19.95



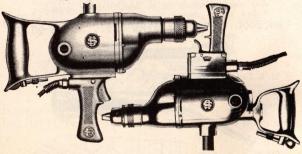
Small; compact; powerful. Small enough to hold in the palm of an average hand but powered for continuous service.

U. S. 1/4" Aero 2500 R. P. M. \$32.50



Equipped with powerful long life motor. Designed for production service, and is also a good all-purpose tool.

U. S. 1/4" Heavy Duty 2000 R. P. M. \$45.00 U. S. 3/8" Special 750 R. P. M. \$53.00



U. S. 1/2" Commander 450 R. P. M. \$35.00

U. S. ½" Special 450 R. P. M. \$58.00

U. S. 1/2" Heavy Duty 450 R. P. M. \$70.00

U. S. 5/8" Standard Duty 400 R. P. M. \$74.00

U. S. <sup>5</sup>/<sub>8</sub>" Heavy Duty 400 R. P. M. \$83.00
U. S. <sup>3</sup>/<sub>4</sub>" Heavy Duty 350 R. P. M. \$92.00

Bench Drill Stands PRICES ON APPLICATION

HYDRAULIC WHEEL PULLER

A Fast, Powerful, Dependable Tool



LATE MODEL CAR SET No. 8

Will take care of nearly all 1934-35-36-37 cars

Utica Hydraulic Wheel Puller

- 1 Adapter No. 8
- Flange Five Stud Adapter
- 1 Flange Six Stud Adapter
- 1 Adapter, S-29, for Ford Models



The UTICA Hydraulic Wheel Puller fills one of the automotive industry's greatest needs —It is listed as stand-ard equipment by some of the largest Brake Lining manufacturers, who operate the most up-to-date Brake Serthe vice stations in the world, after the most exhaustive tests at

exhaustive tests at the main service stations where brake mechanics are trained. It is fast, powerful and also saves time, money broken bearings and battered axle shafts. A tremendous hydraulic pressure up to 75 tons will take off the toughest job without damaging wheels, bearings, axle shafts or drums. It won't leak.

. \$28,22 PRICE Adapters can be furnished to fit all of the older makes of cars at a low cost

## **Gear Pullers**

No. 540W

For pulling gears with cap screw holes, such as Chevrolet timing gear and Stu-debaker starting clutch. Made entirely of alloy steel properly tempered. Screw of alloy steer long. Shipping is 8 inches long. Cadmium plated. Shipping weight

No. 540W PRICE



## **Clutch Pilot Bearing** Pullers



These Pullers have a Split Sleeve that fits into the bearing groove. When the screw is turned up the sleeve locks securely into the bearing and removes it easily.

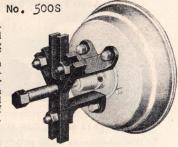
No. F-244—For Models "A," and V-8 Fords. Price . . . . . . . \$1.50

> No. C-242—For Chevrolets. Price . . . . . . 1.50

Wheel Puller

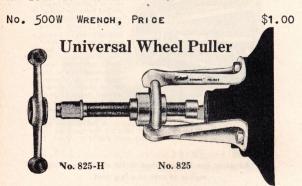
Designed for service station use and will pull all automobile hubs having wire wheels with 5, 6 or 7 studs. Is equipped with two "straight" arms in addition to those shown for pulling gears, bearings, fan pulleys, etc. Guaranteed to stand 28,000 pounds of direct pull to square inch.

No. 500S PULLER EACH. \$7.50





Drive handle for use with No. 500S wheel puller. Wheels removed much easier than with a wrench, as great pressure can be applied by using hammer.



A quickly adjusted Hub Puller that will bring the most stubborn "frozen" hub without the slightest damage to gears, axle, or other parts. Arms "float" on a slip-collar, making them adjustable to any bolt circle. Pulling screw is equipped with floating self-centering tip to engage the axle to prevent swelling or distortion. Wheel pullers are absolute necessities because of the certain damage to result from using knock-offs on late model cars.

No. 825—Universal Hub Puller, 7½" capacity.......\$9.00
No. 825-H—Hex Driving Handle. 1½" hex opening. Fits

No. 825-V—Set of 3 Arms, Retainer Lock Ring, Automatic Arm Spacer and Retaining Spring to be used with No. 825 Puller, making it a Ford Special. Each . . . . . . . . . . 5.10

#### SPECIAL ESSEX TERRAPLANE WHEEL PULLER



This puller was designed for use on Essex Terraplane, since, due to the design of axle, we do not recommend the use of knock-out type pullers on these cars. Body is heavy casting, screw and nut are made from chrome nickel steel, properly heat treated.

E-426-Price \$3.00

## THORSEN (FT) TOOLS

#### HEAVY DUTY CHEVROLET TRUCK WHEEL PULLER - ALL MODELS FROM 1930 TO PRESENT MODELS

FC-283-Price \$6.90



This tool must be used to fully appreciate its sturdy quality. The body is one large heavy casting. Center is made of axle shaft steel, heat-treated, connected with a large floating nut. Fleet owners and general service stations need this puller.

To operate: remove hub cap, axle shaft nut and wheel flange nuts; attach Wheel Puller over hub bolts by using three flange nuts; tighten center screw against

force the wheel off. If extra tight, a slight blow on end of screw will loosen the wheel. Will also handle 1930 to 1934 Ford trucks. Shipping Weight 20 lbs.

### BUICK TIMING GEAR PULLER (Late Models)

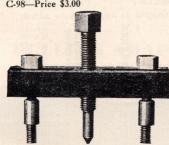
B-228-Price \$4.50

Late models, Buick Eight, have a fibre timing gear, with a groove in-side of the hub. To remove gear, tighten the center screw, which ex-pands the split



sleeve and quickly removes the gear without damage.

#### CHEVROLET CRANK SHAFT GEAR PULLER C-98-Price \$3.00



This tool has many uses. Will pull crank shaft gears that have tapped holes. Side fingers have two size threads in e a ch finger, 36".

16 and 5/16".18. These are screwed into the tapped holes, center screw dand gear pulled quickly and easily. Screws will not strip; are made of chrome nickel Shipping Weight 4½ lbs. threads size in

COMBINATION TIMING GEAR PULLER



steel, then heat-treated.

M-25-Price \$3.15

This tool is made of solid steel. Screws are made of chrome nickel steel, heat-treated. Used on all sizes of timing and other gears that have tapped holes. The

standard set of screws furnished with this tool are 6" long and have two sizes of threads on each finger and will fit 36-16 and 3/16-18 U. S. Standard Thread tapped holes, which will take care of the greater percentage of gears:

#### M-25-A-Extra Set of Screws

S. A. E. Standard 5/16-24 and 3\(\xi\):24 thread. Set of two.

Price \$1.50.

M-25-B—Special length—9". 3\(\xi\)-16 thread only. Set of two.

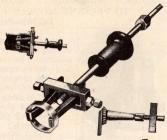
Price \$2.10.

M-25-C—Special length 7". \(\frac{1}{2}\)"-13 thread. Set of two.

Price \$2.10.



## **Bearing Race Puller**



FOR REMOVING WORN OR DAMAGED TIMKEN BEAR-ING CUPS, REMOVING GREASE RETAINERS OR TAKING END-PLAY OUT OF AXLE BY INSTALLING A SHIM BEHIND BEARING CUP, ALSO RELINING BRAKES ON CHEVROLET, PLYMOUTH, DODGE, CHRYSLER, PONTIAC, NASH, REO, DESOTO AND MANY OTHER CARS AND TRUCKS. SCREW ADAPTOR TO END OF SHAFT AND END OF SCREW BELOW CRJSS ARM OF THE TOOL. A FEW BLOWS WITH THE HEAVY KNOCKER, SHAFT AND BEARINGS ARE QUICKLY REMOVED. DETACH ADAPTOR AND PLACE TWO SIDE ARMS IN CROSS ARM, THEN INSERT IN THE BEARING RACE, TIGHTEN TWO END SCREWS. LOCK NUTS ARE TIGHTENED, A FEW BLOWS WITH THE KNOCKER, AND THE RACE IS REMOVED; END SCREWS ARE LOGSENED, FINGERS PLACED CLOSE TOGETHER AND THE GREASE RETAINER IS REMOVED SAME WAY.

No. 500N PULLER PRICE EACH \$8.50 Other Adapters as listed may be added:

			The state of the s			
U-472-G	1" —14\$		U-472 A	5/8"-18	\$ .50	
U-472-H	11/2"—12	.40	U 472-B	3/4"16	 .60	
U-472-I	11/4"—12	.40	U-472-C	3/4"20	 .60	
U-472-I	11/4"-7	.50	U-472-D	13 "-16	 .60	
U-472-K	11/2"—12	.50	U-472-E	78"-14	.75	
U-472-L	11/2"-6		U-472-F			

### GENERAL PURPOSE GEAR PULLER SET



Consists of three of our most popular gear pullers, together with extra sets of thin jawed fingers and side screws. The large gear puller consists of one set of heavy fingers and one set of fingers with thin jaws, 3/16" thick. Will handle gears up to 5" diameter. Length of finger. under cross arm, 4½". Small gear puller has one set of heavy and one set of thin jawed fingers. Will handle

gears 3" in diameter. Length of fingers under cross arm,

There are two sets of side screws for pulling timing gears, consisting of 3/8-16 and 5/16-18 U. S. Standard threads; also 3/8-24 and 5/16-24 S. A. E. Standard threads. Complete set in metal box. Weight 14 lbs.

No. UII7 GEAR PULLER SET.......\$12.50

# Universal Puller With Slide Adjusting AUTOMATIC LOCKING Arms



NO SHOP IS COMPLETE WITHOUT

A GOOD UNIVERSAL PULLER

Complete—as illustrated with two sets of arms and three interchangeable centers.

No. M-15

\$1500 NET

The most successful UNIVERSAL puller ever built. MO-GIL-NER Universal Puller is a real time saver. Handles a wide variety of jobs.

- It has the exclusive MO-GIL NER AUTOMA
   TIC LOCKING ARMS—which always exert a
   straight and even pull.
- 2. Puller Arms are made of selected steel hand forged and specially heat treated for exceptional strength which permits a thin jaw—the thin jaw permits getting into close quarters.
- mits getting into close quarters.

  3. Jaws on long arms are slotted to engage studs for pulling timing gears.
- Interchangeable centers, furnished in three shapes and sizes, give wider range of time-saving operations.
- 5. Puller screw is exceptionally long, permitting most jobs to be done in a single operation.
- 6. Cross head takes up to 9" dia.; Arms have a maximum reach of 7" Handles both SMALL and MEDIUM size jobs with ease.

## PULLING ADAPTORS AND PUSHER



Set 100 M for BUICKS includes numbers 100A-B-C-D. Price.....\$13.50

Set 101 M for STUDE-BAKER includes 101A-B-C-D and 100D. Price.\$12.50

Large combination set of adaptors as illustrated operates on such popular cars as BUICKS, STUDE-BAKER and 4 cylinder PLYMOUTH. Price complete....\$22.50

101B Studebaker to be used with 101A for protecting end of cam shaft. Also use with pusher 100D for replacing gear. \$0.75 101D Studebaker to be used with 101C for protecting end of cam shaft. Also use with pusher 100D for replacing gear. \$0.75 100C Buick to replace gear on '31 and '32 models use with pusher 100D ...\$0.75

100A Buick adaptor
for pulling early
models up to '31.
\$3.50

tor for pulling the Dictator and Commander model. \$2.50

100B Buick adaptor for pulling 1931-32 models ......\$3.50

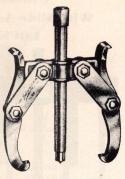
101 F Studebaker adaptor for pulling the President model \$2.50

# THORSEN/

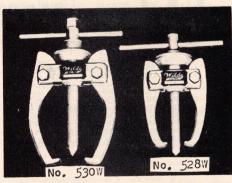
Gear Pullers

Van Chrome Gear Pullers have automatic Non-Slip gripping fea-tures not embodied in any other tures not embodied in any other equipment. The patented positive gripping jaws will never slip. A feature of these Pullers is that by reversing the arms different style jaws are quickly available, giving them a wide range of popular uses. Forged from the finest Chrome Vanadium steel and designed to stand terrific strains. Comes in two popular sizes. two popular sizes:

No. 830H-Gear Puller. Jaws length under cross-arm  $3\frac{1}{2}$ ", spread 6". Most suitable for small generator gears, bearings, etc.
Price each.....\$5.46



No. 83fH-General Service Puller. Jaw length under cross-arm 5½", spread 8". For timing gears, bearings, pinions, races, etc. Price each......



FORGED WITH VERY THIN PULL-JAWS ARE DROP ING LIPS, IDEAL FOR PULLING GENERATOR GEARS ALSO USED FOR PULLING BATT-AND BEARINGS. ERY TERMINALS.

528W, No. DEPTH 21/2", PULL GEARS UP TO 21/2" DIAMETER, PRICE COMPLETE . \$2.00 JAWS ONLY FOR #528W, PR. . 62 529W No. DEPTH 3-5/8", PULL GEA PULL GEARS UP TO No. 530W

3.00 5" DIA. No. 531W JAWS ONLY FOR # 530, PR.

### COMBINATION GEAR PULLER SET



will handle gears from 1" to 61/2" diameter.

No. U-195-Price \$13.75

The tools as shown in the steel box is a combination of our New National Gear Pullers, consisting of 3 gear pullers: Long fingers, 6" under cross arm, for large gears 6½" diameter; short fingers 4" under cross arm, for smaller gears 4" diameter; also Timing Gear Puller for gears with tapped holes. Fits 3\%-16, \%/16-18.

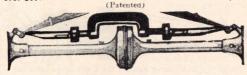
### THORSEN (TT) TOOLS

### SPECIAL TOOLS

#### FORD REAR SPRING SPREADER Ail Models A, B

No. 307 N

Price \$7.50

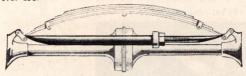


Working on a Model A or B rear spring is a hard job. Because the spring is located directly over the rear axle, it is necessary to use a spreader with a "U" type yoke. Made with heavy steel casting, fully heat-treated. May also be used on Ford V-8 models, including 1934 ONLY. Weight, 19 lbs.

#### FORD REAR SPRING SPREADER All V-8 Model Cars, Including 1936

No. 493 N

Price \$6.70



This tool is made of neavy, seamless steel tubing, correctly heat-treated for long service. Equipped with sturdy roller bearing. With this spreader, replacing the old spring is an easy matter. The spring can be expanded, rear end completely removed and all necessary work done on the rear axle, while the tool holds the spring in place ready to re-install the rear end. Will handle all Ford V-8 Models, including 1936.

#### FORD V-8 FRONT SPRING SPREADER All V-8 Model Cars, Including 1936

No. 494 N

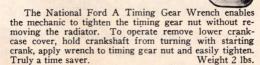
Price \$6.35



Also fuggedly constructed from heat-treated seamless steel tubing. Equipped with roller bearing as above. When used in conjunction with the No. 493, makes a fine utility set for Ford V 8 cars. Will serve all Ford V-8 cars, including 1936. V 8 cars.

#### FORD MODEL A TIMING GEAR WRENCH

F-170-Price \$1.85



#### Crank Case Studs Pat. No. 1,921,379



580W-14" USS, FITS CHEV. PER PAIR \$0.48 No. .48 No.

581W-3/8" USS, FITS HUDSON, PAIR 582W-5/16" SAE, FITS DODGE, PAIR 583W-5/16" USS, ALL OTHERS, PAIR 584W-COMPLETE SET IN ROLL .48 No. .48 No.

1.92 No.



### SPECIAL TOOLS

### **Chevrolet Pinion Sleeve Tool**

All Model Chevrolet Cars and Trucks



Holds the lock sleeve against the front propeller shaft bearing, when replacing the propeller shaft in its housing, regardless of whether the rear end assembly is removed, or just propeller shaft pulled, without removing the assembly.

No. C-344 Price .....\$1.00

#### UNIVERSAL PISTON RING TOOL FOR INSTALLING OR REMOVING RINGS

U-141-Price \$1.50





#### UNIVERSAL PISTON VISE

M-40-Price \$3.95



This tool fastens to the bench, center is cut out, jaws are lined with babbitt, which prevents damaging the piston. Used on all sizes of pistons. piston. Shipping Wgt. 14 lbs.

#### SPECIAL CHEVROLET CARBURETOR BOWL NUT WRENCH

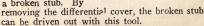
U-193-Price \$1.00



Here is a handy tool for draining and removing the carburetor bowl on Chevrolets. A twelve point ratchet wrench that easily turns bowl nut on or off, which would otherwise be difficult, due to its location. One end has 34" opening, the other 54", making it a handy wrench for other purposes, such as tightening air valve stem nuts.

#### CHEVROLET BROKEN AXLE SHAFT REMOVER C-260-Price 90c

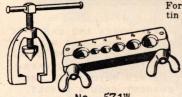
axle When an shaft breaks at the differential, it leaves a broken stub. By



### Carbon Scraper



### SPECIAL TOOLS TUBING FLARING TOOLS



No. 571W

No. 571W Tubeing flaring tool. Complete with screw type flaring attachment. each \$2.73

No. 572W-Tubeing Flaring Tool is the same as No. 571 except that is furnished with a flaring punch instead of screw type flaring attachment. each \$2.08

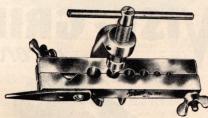


Combination Tube Cutter, Flaring Tool and Reamer. Six sizes,  $\frac{3}{16}$ ",  $\frac{1}{4}$ ",  $\frac{4}{16}$ ",  $\frac{4}{36}$ ",  $\frac{1}{16}$ " and  $\frac{4}{2}$ ". Cutting attach ment is built right into the tool. V-shaped reamer section can be turned back when not in use.

No. 573W Complete with screw type flaring attachment.
Each \$3.84

No. 574W Extra Cutter.....Each .32

#### Combination Tube Cutter, Flaring Tool and Reamer No. 750H



Six flaring dies are included in this tool to give all popular sizes of tubing the accurate flare and taper that insures a perfect, tight joint. It conserves laber and time and does a speedy job without the aid of loose dies or vise.

The V shaped section, which is adjustable, acts as a tube reamer.

To get a perfect flare, tighten tubing in the proper size opening, turn up lock nut and screw down T handle. To operate cut off, tighten tubing in the vise Jaws and revolve tool.

Hardened and finished in satin nickel with polished face.

No. 750H Capacity %16" to ½". Length 5½" PRICE, complete 3.90
No. 751H Extra Cutter Wheel. PRICE, each 30

### Self Feeding Tube Cutter With Reamer



No. TC2 Length 41/2"

\$ 1.00

A sturdy compact special spring steel tube cutter for 1/8 to 5/8 Copper, Brass and Lead tubing.

Cutter and Reamer are made out of high grade tool steel. Place tube in cutter and give ½ to ¾ turn of thumb nut, the tension in the frame giving a gradual feed until the tube is severed. No added turn on the thumb nut is necessary



FOR A QUICK AND EASY WAY OF MARKING TOOLS WITH A PRIVATE OR SPECIAL BRAND USE THIS ELECTRIC MARK-ING PEN WHICH USES THE CURRENT FROM A 6 VOLT STORAGE BATTERY OF FROM THE ELECTRIC LIGHT CIRCUIT THRU THE MEDIUM OF A SMALL (\$3.50) TRANSFORMER, L-31 SIX VOLT MARKER \$2.50

#### Socket Holders

### AAAA

Excellent Screw Driver Holder

SOCKET HOLDERS SECURELY HOLD A SET OF SOCK ETS IN PLACE. MAY BE SCREWED ON TO BENCHOR WALL OR FASTENED IN TOOL BOX.

TWO TYPES AVAILABLE: FOR STANDARD 1/2" SQ. CONNECTION SOCKETS AND 3/8" SQ. CONNECTION (JUNIOR). THE JUNIOR SOCKET RACK HOLDS 12 SOCKETS AND THE STANDARD HOLDS 15.

No. SH-12 JUNIOR SOCKET HOLDER .... \$0.60 SH-15 STANDARD SOCKET HOLDER .... 0.60 No.





No. VG2 \$1.95 Net

No. VG1 \$1.65 Net

Will do those "impossible" jobs with ease.
Hendy as a pair of pliers and will lock to
the work with a grip that won't let go
until the lever is snapped open. Made of
high grade alloy tool steels with chrome
added to the laws for toughness, scientifically hardened and tempered. 10" size
dijustable to 1½"; 7" size adjustable to





FINE QUALITY SHOP LIGHT EXTENSION CORDS IN DIFFERENT STYLES OF REFLECTORS AND CORD LENGTHS, NOTE ADDITIONAL OUTLET IN HANDLE IN THE RS TYPES,

No.GL25 EASY OPEN GUARD, 25 FT CORD \$1.35
No.GL50 EASY OPEN GUARD, 50 FT CORD 2.10
No.GL25R HEAVY REFLECTOR 25 FT CORD 1.45
No.GL50R HEAVY REFLECTOR 50 FT CORD 2.25
Mo.GL25RSDITTO WITH SIDE OUTLET, 25 FT 1.75
No.GL50RSDITTO WITH SIDE OUTLET, 50 FT 2.50

### **Mechanic's Creepers**



No.	Size	Unit	Package	Weight
220.	.18" x 393/4"		.1	20 lbs.

No. 220 PRICE . . . . . . . . . \$4.85

This is the kind of equipment men like. It's designed for comfort and convenience, and built for hard service.

- 1. No rough edges to tear clothes or exposed braces to bruise bodies.
- 2. Light, easy to handle.
- 3.  $11_2^{\prime\prime\prime}$  casters revolve on ball bearings; creeper moves smoothly and easily in any direction.
- 4. Casters bolted to creeper-not riveted. Easily removed.
- Surface depressed to fit body. 16 vent holes for ventilation. Comfortable.
- 6. Padded head rest.
- 7. Built on 18-gauge sheet steel, cross-braced underneath.

#### Universal Battery Carrier



RUBBER-FABRIC STRAP, ACID RESISTING, FULL LENGTH WITH AUTOMATIC LOCKING OLIPS THAT BIND AGAINST POSTS WHEN LIFTING BEGINS. No. A99 Universal Battery Strap Ea. \$0.35

### **Improved Precision Pilot Reamers**



These Reamers have double tapered floating pilots that give perfect alignment. Equipped with seven blades properly spaced and angled to give a smooth shearing cut and eliminate chattering. Particularly adapted to reaming King Bolt Bushings, Piston Pin Bushings, Spring Shackle Bushings and all others.

No.	Price	No. Price
1B	7/6" to 1/2"\$3.45	9B 15/16" to 1"\$4.65
2B	1/2" to 9/6" 3.60	10B 1" to 1½6" 4.80
3B	%" to 5/8" 3.75	11B 1½6" to 1½" 4.95
4B	5/8" to 11/6" 3.90	12B 11/8" to 11/4" 6.00
5B	11/16" to 3/4" 4.05	13B 11/4" to 13/8" 6.25
6B	3/4" to 13/6" 4.20	14B $1\frac{3}{8}$ " to $1\frac{1}{2}$ " 6.60
7B	13/6" to 7/8" 4.35	15B 1½" to 15/8" 7.15
8B	7/8" to 15/16" 4.50	

### **Expansion Reamers**



No.

No.

36R

Seven Blades Staggered and Set at Angle Prevents Chattering

Price No. 2764" to 3164" 1923" to 1722" 1923" to 2122" 2122" to 2252" 2252" to 252" 2722" to 156" 2722" to 156" 166" to 176" 136" to 1722" 1722" to 1252" 1722" to 1252" 1722" to 1252" A-1 \$2.70  $\frac{2.70}{2.70}$ A B 2.85 C 2.85 D 3.00 3.00 G 3.30 3.50 H 4.20 I 4.80 J K 6.00 6.90

No. B-1—Set of eight reamers A to H, cutting range from <sup>15</sup>/<sub>22</sub>" to 1½6". Complete in box \$23.90

No. B-2—Set of four reamers I to L, cutting range from  $1\frac{1}{16}$  "to  $1^{25}\frac{1}{22}$ ". Complete in box \$21.90

Taper Repair Reamer

The T Handle eliminates the need for a bit brace or other holder as it is turned by its own handle. Size \( \frac{1}{8} \)" at point and \( \frac{1}{2} \)" at large end

PRICE

NU-TRIX THREAD RESTORER

Nu-Trix is made to overlap several threads. A few strokes and the battered thread is as good as new. Eight U.S.S. and S.A.E. thread sizes on each tool: 11, 12, 13, 14, 16, 18, 20 and 24 threads to the inch.

1NT THREAD FILE .....\$2.00

#### KING BOLT BUSHING REAMER

No.	68B 69B	For all A, B and V-8 Ford Cars For all AA, BB and V-8 Ford Trucks	Size .8135 " 1.0045	Net Price \$2.25 2.75
No.	75B	For all Chevrolet 6 cylinder Cars Models) also for Plymouth 1933 PC	(except Kr	ee Action
		& PG Models For all Chevrolet 6 Trucks For Plymouth 1934 PF 1935 1936	.7353	2.25 2.75

#### KING BOLT BUSHING DRIVER



No. 825 B	Net Price	
	For all A, B and V-8 Ford Cars \$ .50	
No. 826 B	For all AA, BB and V-8 Ford Trucks	
No. 840 B	For all Chevrolet 6 cylinder Cars (except Knee	
	Action Models); also for Plymouth 1933 PC & PD, and	
	1934 PF & PG Models	
No. 841 B	For all Chevrolet 6 Trucks	
No. 842B	For all 4 cylinder Plymouths	
No. 843B	For Plymouth 1934 PE, 1935, 1936 and 1937 Models50	

#### FORD PISTON PIN INSERTER AND REMOVER



			Net Price
No.	835B	For Ford A and AA, B and BB	\$1.40
No.	837B	For Ford V-8 Cars and Trucks	1.00

#### PISTON PIN BUSHING REAMERS



**Net Price** Back No. 65B For Ford V-8 cars & trucks \$2.00 .7497 No. 66 B A & AA, B & BB cars & trucks 1.000 2.50 No. 70B No. 76B Fords, 1937 model 60 6885 2.00 For Chevrolet Six .990 2.50 No. 86 AB For all 6 cyl. Plymouth and all Chrysler 1932-35 and all DeSoto 1932-35 2.25

### PITMAN SHAFT BUSHING REAMERS

Size Ford V-8 11/2 ton truck to 1937 No. 63B 1.251 For Ford A. AA, B, BB & V-8 cars and trucks (except V-8 1½ ton) No. 64B and Chevrolet 1935 1936 and 1937 Master Cars & 1936 & 1937 Chev. trucks 1.1255 3.00 No. 66-AB For Chevrolet 1931, 1932 & 1936 Standard car, 1933 and 1934 Master car, and 1931 to 1934 (incl.) truck 1.0005 2.75 No. 87 B For Chevrolet Standard car,

CARE OF REAMERS The reamer must be kept sharp to do good work.
It should only be expanded enough to take a light cut.
Turning the reamer when it is not cutting dulls it very idly.

It should never be turned backwards.

.876

2.50

1933 to 1935 incl.

rapidly.

### "HIGH SPEED" HOLE SAWS FOR USE WITH 1/4" ELECTRIC DRILLS

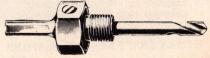


No. 500R	34" Diam. Saw, Complete	\$1.40 each
No. 501R	%" Diam. Saw. Complete	1.40 "
No. 502R	1" Diam. Saw, Complete	1.40 "
No. 503R	11/8" Diam. Saw, Complete	1.50 "
No. 504R	11/4" Diam. Saw, Complete	1.50 "
No. 505R	Mandrel with Pilot Drill	.75 "
No. 506R	Pilot Drill	.25 "

### FOR USE WITH 1/2" and 5/8" ELECTRIC DRILLS

No.	Dia. of Sa	w Pipe Tap Size	Conduit Size	Net
510R.	3/4 "		3/8"	\$ .75
511R		3/4 "	3/8 " 1/2 "	.75
512R	1"	<b>建筑 研究的现在分</b> 件	MINE TO SERVE OUT	.75
513R		1"	3/4"	.85
514R				.85
515R	1 3/8"		1"	.85
516R	11/2"	11/4"		1.00
517 R	1 1 % "			1.00
518R		11/2"	114"	1.25
519 R				1.25
520R			11/2"	1.25
521R				1.75
522R		2"		1.75
523 R				1.75
524R			2"	1.75
525 R				1.75
526 R		21/2"		1.75
527 R	278"			1.75
528R	. 3"		21/2"	1.75
529 R	31/8"			1.75
530R		3"		1.75
531 R	. 3%"			1.75
532 R	. 3½"			1.75

### MANDREL FOR HOLE SAWS



Dealer Net

540 R	Mandrel with Pilot Drill fits ¾" up to and including 1½" saws
541 R	Mandrel with Pilot Drill fits 1%" up to and including 3½" saws
542 R	¼ "Pilot Drill .35 "





### HACK SAW BLADES WITH Easy Starting Teeth

1. Starts cut at any angle.

12" 18T

MILFORD ALL HARD

- 2. Teeth will not catch in corners.
- 3. No scraping to begin cut.
- 4. Reduce cutting time.
- 5. Will not slip off cutting line.
- 6. Distributes wear full length

Easy starting fine pitch teeth on forward end of blade wins approval of thousands of mechanics because it's the most practical for every purpose.

MILFORD FLEXIBLE 12"

EASY STARTING TEETH 18T

### FLEXIBLE **DUPLEX**TUNGSTEN ALLOY STEEL

For general use—Electricians, Plumbers, Auto Mechanics

gth	lth les	ck.	Teeth pe and Stock		h ber	Price	Wgt.
Len	Width	Thick.	14-28	18-36	24-36	Gross	Gross Lbs.
8	7-16	.025		FD 818	FD 824	\$8.00	33/4
10	1-2	.025	FD1014	FD1018	FD1024	10.00	41/2
12	1-2	.025	FD1214	FD1218	FD1224	12.00	53/4
12	9-16	.025	FD2614	FD2618	FD2624	13.50	63/4

### ALL HARD **DUPLEX**TUNGSTEN ALLOY STEEL

For Mechanics, Toolmakers, etc.

	gth	lth	ik.	To and	Stock Num	h ber	Price	Wgt.
14	Len	Width	Thick.	14-28	18-36	24-36	Gross	Gross Lbs.
	8	7-16	.025		MD 818	MD 824	\$8.00	33/4
	10	1-2	.025	MD1014	MD1018	MD1024	10.00	41/2
4	12	1-2	.025	MD1214	MD1218	MD1224	12.00	53/4
1	12	9-16	.025	<b>MD1264</b>	MD2618	MD2624	13.50	63/4

### REZISTOR DUPLEX Special Alloy HIGH SPEED STEEL. H. S. Cutting

gth	Ith	<u> </u>	-	Teeth per Inch and Stock Number			List Price	Wgt.
Len	¥id Inch	Thick.	14-28	18-36	24-36	32-36	per Gross	Gross Lbs.
10	1-2	.025		RD1018	RD1024	RD1032	\$40.00	5-0
12	1-2	.025	RD1214	RD1218	RD1224	RD1232	48.00	61/2
10	5-8	.032		RD0828			67.50	73/4
12	5-8	.032		RD2828		STATE OF	81.00	93/4

#### MILFORD MIDGET BLADES

Lgth.	Width In.	Thick- ness	Teeth Per In. and No.	List Price Gross	Weight Per Gross
	Jan Barrier		32		Ozs.
6	1-4	.014	F632	\$9.00	14

### THORSEN (FT) TOOLS

## Lincoln Mechanics' Hack Saw Frame





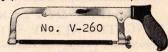
#### HEAVY DUTY

#### EXTRA RIGID

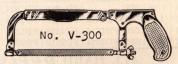
Made from 3/16x3/4" round edge spring steel, oil tempered, Made from 37 10.74 round eage spring steer, oil tempered, Cadmium plated, Cast Aluminum—Alloy handle, wing nutightener, case-hardened pins. Will also hold power blades. Blade faceable in four directions. Fully guaranteed. Furnished with blade.

No.	Size	Depth	Wt. Ea.	
IOPG	10"	4"	11/4 lbs.	\$2.50
12PG	12"	4"	11/2 lbs.	\$2.50
12PGR	12" Rail	6"	15/8 lbs.	\$3.00
	(Ha	ndle Tighte	ener)	
No.	Size	Depth	Wt. Ea.	
10L	10"	4'	11/4 lbs.	\$2.50
12L	12"	4"	11/2 lbs.	\$2.50
1201	12" Rail	<b>6"</b>	15/2 lbs	\$3.00

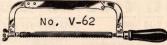
Packed one in a box. Pistol grip furnished unless otherwise specified.



Extraordinary value—a very popular number. Checkered composition handle, molded over long steel tail piece. Adjustable for 8" to 12" blades; blade may be faced in four directions. Nickel-plated stock 165" x 5%"; depth 3": complete with 10" blade. No.V-260 FRAME \$0.75



Pistol grip made of checkered steel, shaped to fit the hand comfortably. A splendid frame for the plumber and automotive mechanic. Back is reinforced. Adjustable for 8" to 12" blades; blade may be faced in four directions. Nickelplated stock .165." x %%"; denth 33%"; complete with 10" blade. No. V-300 FRAME \$0.75



Horizontal frame with black hardwood handle; has wing nut blade adjustment. Reinforced back. Adjustable for 8" to 12" blades; blade may be faced in four directions. Nickel-plated stock .165" x 5"; without blade.

No. V-62 FRAME \$0.35



MILFORD Midget Frames

No. V-3 MIDGET FRAME BLADE INCLUDED, EA 0.25

No. V-34 MIDGET BUSHING HACKSAW FRAME



No. V-410 MIDGET BUSHING HACKSAW FRAME 0.75 No. V-410A ONE DOZ 6" 32T HACKSAW BLADES FOR ANY OF THE ABOVE MIDGET FRAMES 0.75

# THORSEN TOOLS NUCUT WAVY TEETH NUCUT FILE



Cuts Faster
Lasts Longer
Smoother Finish
Clears Quickly



ORDINARY FLAT

FILE

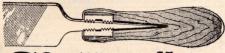
HELLER NUCUT
"WAVY TEETH" FLAT

NUCUT Files are distinctly different from any other file. The NUCUT "Wavy Tooth" principle is patented. NUCUT Files perform equally well on Steel, Iron, Aluminum, Brass, Bronze, Copper, Slate or Wood. The Wavy Teeth will cut much faster than other files and leaves a smooth finish. Teeth will not clog when filing soft materials. NUCUT Files are Electrically Heat Treated to give them long life and durability. Buy the file with the White Tang.

#### ALL TYPES AND SIZES

Half Roun Bastard	d	Rour Basta		Mill Bastard		Fla Basta	
E	ach		Each	F	lach		Each
6-inch \$	.38	6-inch					
8-inch	.47	8-inch	27	8-inch	.27	8-inch	34
10-inch	.57	10-inch	37	10-inch	.37	10-inch	44
12-inch	.74	12-inch	47	12-inch	.47	12-inch	61
14-inch	.96	14-inch	67	14-inch	.67	14-inch	83

Usual Commercial Discounts from Standard List Prices when purchased in quantities.



### File Handles

No901	for	small	files)	15c	Soldering
"902	"	4"	"	15e	
"903	"	5"	"	15c	Iron
904	""	6"	"	15c	Handles
"905	"	8"	"	20c	Handies
"906	"	10"		20c	35e
"907	"	12"	"	25c	
11908	"	1/11	"	250	

**Combination Circle Snips** 

Plier Snips





These Combination Circle Snips are especially adapted for cutting straight or irregular shapes.

No. 207 — 7-inch. Price, each.....\$1.00 No. 212—12-inch. Price, each..... 1.50 UC8 8" UC9½ 9" \$1.95 2.35

### **High Speed and Carbon Drills**







Set	No. INDEX CONTAINER	Per Set
118	UCarbon Steel Jobbers' Length Drills, 1/16" to 1/2"	
	by 64ths	\$16.00
119	UCarbon Steel Wire Gauge Drills No. 1 to No. 60	14.35
218	Tight opeca beech Jobbers Bength Diling, 16 to	
	½" by 64ths	27.70
219	High Speed Steel Wire Gauge Drills No. 1 to	
	No. 60	21.80
	METAL STAND	
18 L	J Jobbers' Drills, 1/16" to 1/2" by 64ths	\$16.00
19 L	Wire Gauge Sizes, No. 1 to No. 60	14.35
	WOOD STAND	
7U	Jobbers' and Wire Gauge Drills 1/4 to 3/8 inch	
	by 32ds and Nos. 1-60. 65 Drills	15.75
8 U	Wire Gauge Sizes, No. 1 to No. 60	13.35
911	Wire Gauge Sizes, alternate numbers from No. 1	
•	Wire Gauge Sizes, alternate numbers from No. 1 to No. 59	8.50
15U	Letter Sizes, A to Z	13.50
17U	Wire Gauge Sizes, No. 1 to No. 80	15.25
	Stands without Drills for above SetsEach	\$2.50

### Straight Shank Twist Drills JOBBERS' LENGTH

HIGH SPEED STEEL No. 515\_CARBON STEEL No. 115 D

Size Inch	Length Over All Inches	Carbon	n Steel	High Speed	
	Inches	Dozen	Each	Dozen	Each
1/6	21/2	\$1.45	\$0.13	\$3.25	\$0.28
15	25/8	1.50	.13	3.35	.28
32	23/4	1.55	.13	3.45	.29
75	27/8	1.60	.14	3.65	.31
1/8	3	1.60	.14	3.90	.33
4	31/8	1.65	.14	4.20	.35
32	31/4	1.70	.15	4.55	.38
11	33/8	1.80	.15	4.85	.41
3 16	31/2	2.00	.17	5.25	.44
13	35/8	2.25	.19	5.65	.48
37	33/4	2.45	.21	6.20	.52
15	37/8	2.70	.23	6.75	.57
1/4	4	2.95	.25	7.30	.61
17	41/8	3.15	.27	8.10	.68
37	41/4	3.40	.29	8.90	.75
12	43/8	3.60	.30	9.75	.82
16	41/2	3.90	.33	10.55	.88
81	45/8	4.25	.36	11.60	.97
11	43/4	4.55	.38	12.70	1.06
#	47/8	4.95	.42	13.75	1.15
3/8	5	5.40	.45	14.85	1.24
25	51/8	5.85	.49	16.20	1.35
11	51/4	6.30	.53	17.55	1.47
#	53/8	6.95	.58	18.90	1.58
18	5½	7.65	.64	20.25	1.69
#	55/8	8.30	.70	21.60	1.80
15	53/4	9.00	.75	22.95	1.92
81	51/8	9.90	.83	24.55	2.05
1/2	6	10.80	.90	26.20	2.19



### **Screw Extractors**

No.1192 Ezy-Out Screw Extractors



For removing broken cap or set screws.

A hole should be drilled in broken screw, an Ezy-Out slipped into hole and with the use of a tap wrench, screw comes out on its own threads.

No of the last	DIAMETER	R, INCHES	Use	LENGTH,	INCHES	No. 192
Size	Small End	Large	Drill	771 4	Over	Price Each
No.	End	End	Inches	Flute	All	
12	.054	.117	5/64	1/2	2	\$.40
	.080	.174	7/64	3/4	23/8	.40
37	1/8	1/4	5/32	1	211/16	.45
47	3/16	11/29		11/4	3	.50
5Z	1/4	7/6	17/32	11/2	33/8	.55
6Z	3/8	19/29	13/29	13/4	33/4	. 55
72	1/2	3/4	17/29	2	41/8	1.10
2 Z 3 Z 4 Z 5 Z 6 Z 7 Z 8 Z 9 Z	3/4	11/64	13/16	21/8	43/8	1.50
9Z	1	19/32	11/16	21/4	45/8	2.20
10Z	11/4	19/16	15/16	21/2	5	3.30
112	11/2	17/8	19/16	3	55/8	4.40
12 Z	17/8	25/16	115/16	$3\frac{1}{2}$	$6\frac{1}{4}$	5.50



Consists of Ezy-Out Extractors 1 to 6 inclusive. Price, No. 15A \$2.60

No. 1150 SETS Particularly for tool room use. Extractors 1 to 5 inclusive.

PRICE \$2.00 No. 1150

### "LonGriP" Screw Extractors



#### STANDARD LENGTH SCREW EXTRACTORS

Size	Screw	Use	Overall	Price
Size No.	Diameter	Drill	Length	Each
	1/16"	1/32"	11/2"	\$ .48
000E 00E 1E 2E 3E 4E 5E 6E 7E	1/8"	1/16"	13/4"	.42 .36 .39 .42 .45 .51
0E	3/16"	3/32 "	2"	.36
1E	1/4"	1/8"	215/16"	.39
2E	5/16"	3/16"	23/4"	.42
3E	3/8"	1/4"	31/16"	.45
4E	7/16"	5/16"	334"	.51
5E	1/2"	11/32 "	41/8"	.60
6E	5/8"	2764"	41/2"	
7E	3/4"	1/2"	43/4"	.93

Set No. XX-5-Extractors only, Nos. 1, 2, 3, 4 and 5, incl. .\$2.28 Price each..

Set No. XX-10-Contains 21 tools — Extractors Nos. 1, 2, 3, 4 and 5, incl.; Drills Nos. 1, 2, 3, 4 and 5, incl.; Drill Guides Nos. 921 to 1821, incl.; Extractor Wrench No. 10. Complete in Aluminum Box

### **Gasket Cutting Punches**

	Punch Number	Cutting Size	Each	
MA	771	1/4"	\$ .60	
	772	5/6"	\$ .60 .63	1
	773	3/8"	.63	
	774	7/6"	.66	
	775	1/2"	.66	
	776	9/16"	.72	
	777	5/8"	.72	

### THORSEN (T) TOOLS

### "Hexset" Taps & Dies No. 77R



### **Hexset Taps** and Dies

Contains Dies and Taps for ½", ½6", ¾8", ¾6" and ½2" (both US and SAE) and ½6" Pipe. Dies are solid Hexagon and can be used either for cutting new threads or cleaning up old threads. High quality and moderately priced.

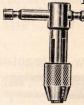
### Hexset" Screw Plate No. 73R Machine Screws & Nuts



All dies have 5/8 hex outside diameter. Set includes Sliding T Handle Tap Wrench; 6" Hex Die Stock; and six taps and dies

4-36, 6-32, 8-32, 10-32, 10-24, 12-24 Price .....

"T" Tap Wrenches



TAP HOLDERS Sliding T Handle Chuck range

size Price No. 31R 3/16" \$ .35 1/4" .55 No. 32R 5/16" No. 33 R

#### .65 Taper Pipe Taps and

1/8	Pipe	Tap	\$	.30	1/4	Pipe	Die (1" Hex)	.30
1/8	Pipe	Die (1"	Hex)	.30	3/8	Pipe	Тар	.65
14	Pine	Tan		30	16	Pine	Tan	Co

### HEXAGON RETHREADING DIES



Hexagon Nut Dies, will fit in out of the way places. From 1 to 1 inch USS or SAE, separately or in sets.

Dies Price 30c each HEXAGON DIE

HAND TAPS AND DIES



(USS OR NC) (SAE OR NF)

> Taps Price 30c each 1/4" to 1/2" USS or SAE

### ADVANCE KNOT WIRE WHEELBRUSHES



Especially recommended for use in automotive industry, or for any manufacturers confronted with a severe scale removing, cleaning, buffing, or brushing problem.

00

In the Advance Knot Wheel there are two rows of holders, and each knot or tuft of wire has its own individual holder. These holders overlap and as a result each uniformly sized knot is spaced at equal distances and firmly held between two metal stampings.

No.	DIA	WIRE	ARBORHOLE	PRICE
811	4"	#33	1/2"	\$1.25
811A	4"	#33	SPECIFY	1.45
809	4"	#33	1/2"	1.50
809A	611	#33	SPECIFY	1.70
807A	8"	#33	SPECIFY	3.50
ADAPTO	RS ANY	SIZE PER	PAIR	.20

NOTE: THE LETTER A FOLLOWING THE STOCK NO. INDICATES THAT THE WHEEL IS SUPPLIED WITH ADAPTORS INSTEAD OF THE SOLID CENTER TYPE PLEASE SPECIFY DIAMETER OF ARBORHOLE WANTED OTHERWISE ALL WHEELS WHETHER SQLID GENTER TYPE OR ADAPTOR TYPE WILL BE SUPPLIED WITH STANDARD 1/2" ARBORHOLE.

### "STANDARD" WIRE WHEEL BRUSHES



EXCEPTIONALLY FINE QUALITY WIRE WHEEL BRUSHES BUILT FOR HARD SERVICE. "STANDARD AND HEAVY DUTY" TYPES. NOTE THE SPECIFICATIONS. ALL WHEELS FURNISHED WITH STANDARD ½" ARBORHOLE ADAPTORS UNLESS SPECIFIED DIFFERENTLY.

No.	Dia.	Width Approx.	Dealet Net Each
A-24	4"	5/8"	\$1.25
A-26	6"	3/4"	1.80
A-28	8"	7/8"	2.25
A-30	10"	1"	2.50

### "HEAVY DUTY" WIRE WHEEL BRUSHES

No. B-24 B-26 B-28	Dia. 4" 6" 8"	Width Approx. 1" 11/8" 11/2"	Dealer Net Each \$1.70 2.75 3.35
B-30	10"	2"	5.00

## THORSEN TOOLS Curly-Head

A New Tool to REMOVE Carbon

A Cleaner—Faster Job



CURLY-HEAD NO. 5

A one section tool for channels, etc. that cannot be reached by larger types. Regularly supplied with coarse coils. **Price \$1.25.** Refills, either fine, medium or coarse \$.50.

Three clusters of Coiled Piano Wire bristles. For cast iron motor heads. Also general utility use in drill or lathe. Flexible action — saves wear on drill. Not refillable—

Price \$1.50.



Three clusters of **Medium** coiled wire—used on aluminum heads and alloy piston tops.

Not refillable—



#### A new service with flare whipping and rotary action

Bristles will not lay down like straight or crimped wire. Curly-Heads stand up in clusters of coiled wire. Each cluster floats freely, distributing wear and gives a whipping and rotary action not possible with other type brushes. Powerful spring tension prevents snarling. Handles easily. No

jerking or jumping. **Saves wear on drill.** Gets into close corners, valve ports, around bolts, etc. leaving burnished surfaces to which carbon does not readily adhere.

MAXIMUM EFFICIENCY ATTAINED WHEN USED AT 1750 TO 2000 R.P.M.

### THORSEN (Tr) TOOLS

### ROTARY WIRE BRUSHES FOR USE WITH **ELECTRIC DRILLS**

No. B-2 R

Overall Length—3"
Bristle Length—1 1/16"
Bristle Diameter—1 1/4"



Twisting the strands of wire in groups adds considerable to their life and results in a much stiffer brush than is possible with the conventional method of assembly. "Cable Twist" will remove the hardest of carbon deposits.

Dealer Net Each-\$1.25







Overall Hgt. Overan 234″ Lgth. Bristle 114″ Dia. Bristle Dia. H



Hgt. 2" Wheel Dia.



B1 Overall Hgt. 21/6" Lgth. Bristle Dia. Bristle

B1R Dealer Net

\$ .70 1.40 B4 Dealer Net 1.15

Dealer Net 1.50

### STEEL WIRE HAND SCRATCH BRUSHES

**B5** 



Dealer Net

\$ .35 each

No. B-57

Total Hard wood shoe handle. Total length 10", Brush Part 5". Wire length 114" Four rows. Weight 6 OZS.



Weight 6 ozs. \$ .30 each

Hard wood handle. Total length 14 inches. Length Brush Part 6 inches. Three rows. Wire length

### No. B-55 Muck Brush, Metal Handle



Steel wire bristles 2 x 2 %. Length overall 8 %. For close quarter work on axles, cylinder heads, etc. Excellent for cleaning small parts. Dealer Net—\$.50 each.

### Ballpein Machinists' Hammer

Machinists' Ballpein Hammers of splendid workmanship, temper and style. Well balanced and will give excellent service.

	Net Frice
No. 797—Weight 2	oz:\$ .80
No. 798—Weight 4	oz
No. 799—Weight 6	oz
No. 800—Weight 8	oz
No. 801—Weight 12	oz
No. 802—Weight 1	lb
*No. 804—Weight 11/2	lbs 1.10
*No. 806—Weight 2	lbs 1.20
*No. 808-Weight 21/9	lbs
*No. 810-Weight 3	lbs

\*Sizes 804 to 810 furnished in rubber-set pattern. Handles vulcanized into heads prevents loosening.

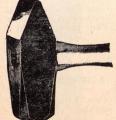
#### MACHINIST HAMMER HANDLES Vacuum Grip

No.	Hammer Size	Length	Price
1L	2 to 4 oz	10"	\$ .25
21.	4 to 6 oz	10"	.25
3L	8, 10, 12 oz	12"	.25
41.	1 to 11/2 lb		.30
5L	1½ to 2 lb		.30
6L	2 to 3 lb	18"	.40
71.	Claw Hammer		.30

### Copper Hammers

No. 151W-2-pound Hammer, 14-inch handle, each................ 1.80

#### **Cross Pein Hammers**



Cat.	I	ength of Handle.	Without Handle.	Price
Nos. CP32	Size	Ins. 141/2	Ozs. 40	Each \$1.30
CP40	2	151/2	64	1.65

These Hammers are very extensively used for tire and rim hammers and are ideal for this purpose. Black finish polished faces.

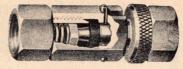
### Hammer Wedges

Corrugated forged steel wedges with sharp enter-ing points. They drive ing points. They drive easily, they tighten and stick. Cadmium plated.

The second second
THE RESERVE THE PARTY OF THE PA

No. 94W		
No. 94 W -Per Dozen	.\$0.20	No. 95
No. 94W -Per 100. Wt. 1 lb	1.25	all to be
No. 95W -Per Dozen		
No. 95W -Per 100. Wt. 2 lbs		
Cuts Are Approximately Full	Size.	

### THORSEN ( INDUSTRIAL COUPLERS



Body

Plug

1/2 COUPLER BODY	½ COUPLER PLUG
C-90 FEMALE .\$1.10	C-100 FEMALE . \$0.80
C-110 MALE . 1.10	C-120 MALE 80

1/4 COUPLER BODY

1/4 COUPLER PLUG

C-30R FEMALE . .65 C-70 MALE . .65 C-40 FEMALE . .45 MALE . . .65 C-80 MALE . .

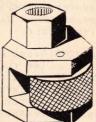
### **Stud Remover**



A compact tool for handling all Studs Ficroller from 1/4" to 3/4". Covers all passenger cars and many trucks. Engineered to precision standards. Will not damage or break studs. Operates on gear principle for positive gripping. The best tool we know of and the price is right.

No. 820-Stud Puller. Each...\$1.95

ECCENTRIC KNURLED ROLLER FORMS A WEDGING ACTION AGAINST THE KNURLED HOLE IN BODY, WHICH GRIPS THE STUD SECURELY. STUDS F 5/16" TO 9/16" DIAMETER STUDS FROM No. 412N PULLER No. 412NA ROLLER ONLY \$1.50



### LISLE Cylinder Ridge Reamer

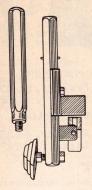


Removes cylinder ridges in one minute—no scraping or fil-ing. Cuts like lathe



No. L-1250—Standard Model,  $2^{11}/6$ " to 41/8". Each ... \$12.50 No. L-1750—Oversize Model,  $2^{11}/6$ " to 51/8". Each ... 17.50 No. L-600 —Set of oversize Jaws to make No. L-1250 into Oversize capacity. Per set.....

### ROBERTS CYLINDER RIDGE CUTTER FOR PRACTICALLY ANY BORE



A SIMPLIFIED RIDGE REAMER THAT IS A FAVORITE WITH A LARGE NUMBER OF MECHANICS BECAUSE IT IS QUICK AND POSITIVE IN ACTION, NOTE A NUMBER OF NEW FEATURES:

GUIDE REST, DETACHABLE & ADJUSTABLE. THE REST IS USED TO KEEP CUTTER IN POSITION

2 EXTENSION BAR THAT SCREWS
INTO TOP OF TOOL TO PER
MIT EASY OPERATION IN
CLOSE QUARTERS AND TO

CLEAR STUDS OR OTHER OBSTRUCTIONS. THERE IS ALSO AVAILABLE, (SEE BELOW) A 20" EXTENSION FOR USE ON FORD V8 MOTORS.

3 MACHINE GROUND, DOUBLE EDGE SPECIALSTEEL

CUTTERS.

TO OPERATE: SET RIDGE REAMER IN CYLINDER ADJUST PRESSURE BARS BY USING ONE OF THE CORRECT WIDTH. TURN REAMER WITH BOX OR SPEED WRENCH MAKING SURE TO LEAD CUTTER WITH HANDLE.

SPECIAL RIJGE REAMER FOR LARGE CYLINDERS
TO MEET THE NEED FOR A LARGER AND HEAVIER
TOOL FOR TRACTOR AND AIR COMPRESSOR CYLINDERS THE NO. 20R MODEL WILL BE FOUND TO BE
PERFECTLY ADAPTED TO THIS CLASS OF EWORK.
SUPPLIED WITH FIVE PRESSURE BARS AND EXTRA STUDS FOR ADJUSTING REAMER IN VARYING
SIZES OF CYLINDERS.
NO. 20R HEAVY DUTY RIDGE REAMER....\$10.00

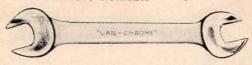
Cylinder Wall Ridge Reamers



Easy to operate and does a thorough job. Has two sets of cutters and will ream bores from  $2^{11}/_{6}$ " to  $47/_{8}$ ". It is not necessary to remove cylinder head studs to use this reamer. Comes in attractive steel case and all pieces as shown.

### Open End Wrenches

Automotive Wrenches 15° Angle Pattern



Catalog No.	Openings Milled	For U. S. Std. Nuts Size Bolts	For Hex. Hd. Cap Screws Dia. Screws	For S. A. E. Std. Nuts & Cap Screws Size Bolts	Net Prices
1721 1021 1722 1723	5/6" & 3/8" 5/6" & 13/22" 5/6" & 7/6" 3/8" & 7/6"	18" & 3/16" 18" & 3/16"	1/8" & 3/16" 1/8" & 1/4" 3/16" & 1/4"	14.	\$ .42
1022H 1023 1723-A	5/16" & 1/2" 13/2" & 1/2" 3/8" & 1/2"	1/8" & 1/4" 3/16" & 1/4" 1/4"	1/8" & 5/16" 3/16" & 5/16"	5/16 " 5/16 "	.48
1024 <sup>·</sup> H 1725 1725-A 1725-B 1025	13/2" & 19/2" 7/6" & 19/2" 7/6" & 9/6" 1/2" & 9/6" 1/2" & 19/2"	3/6" & 5/6" 1/4" 1/4" & 5/6"	14" & 5/6" 14" & 3/8" 5/6" & 3/8"	1/4 " & 5/16" 1/4 " & 3/8" 5/16 " & 3/8"	.57
1726 1026 1727 1027 1027-C 1027-F	1/2 " & 5/8" 1/2 " & 1/6" 9/16 " & 5/8" 1/2 " & 1/16" 9/16 " & 1/16" 9/16 " & 1/16"	1/4" & 3/8" 1/4" & 3/8" 5/16" & 3/8" 3/8"	5/16" & 7/16" 5/16" & 7/16" 3/8" & 7/16"	5/16" & 7/16" 5/16" & 7/16" 3/8" & 7/16"	.69
1728 1028 H 1028-S 1729 1029 1030	9/6" & 3/4" 19/52" & 25/52" 58" & 25/52" 11/6" & 3/4" 11/6" & 3/8"	5/16" & 7/16" 7/16" 3/8" & 7/16" 3/8" & 1/2"	3/8" & 1/2" 7/16" & 1/2" 1/16" & 1/2"	3/8" & 1/2" 7/16" & 1/2" 7/16" & 1/2"	.81
1731 1731-A 1031 1731-B 1032 H 1033-A 1033	34 " & 13/6" 34 " & 78" 25 & 20	7/16" & 1/2" 7/16" & 1/2" 7/16" & 9/16" 1/2" & 9/16"	1/2" & 9/16" 1/2" & 5/8" 9/16" & 5/8"	1/2" & 9/16" 1/2" & 9/16" 9/16" 9/16" & 5/8"	1.08
1733 1033-C 1034 1734 1035	7/8" & 1" 15/16" & 1" 7/8" & 11/16" 7/8" & 11/16" 7/8" & 11/8" 31/2" & 11/16"	1/2" & 5/8" 1/2" & 5/8" 1/2" & 5/8"	5/8" & 3/4" 1/2" 5/8" & 7/8"	9/16" & 11/16" 5/8" & 11/16" 9/16" & 3/4" 9/16" 3/4"	1.47
1735 1036 1736 1037 1737	1" & 1 1/8" 31/2" & 1 1/4" 1" & 1 1/4" 11/6" & 1 1/4" 1 1/8" & 1 1/4"	9/16" & 3/4" 5/8" & 3/4" 3/4"	34" & 7/8" 1" 34" & 1" 1" 78" & 1"	11/16" 78" 11/16 & 78" 34" & 78" 78"	1.98

### "Van-Chrome" Multitype Wrenches



Combination Box and Open End — Drop Forged from Chrome Vanadium Steel						
No.	OPENG	PRICE				
1212 H	3/8"	\$0.51				
1214 H	7/16	.54				
1216 H	1/2	.60				
1218 H	9/16	.72				
1220 H	5/8	.78				
1222 H	11/16	.90				
1224 H	3/4	.99				
1226 н	13/16	1.05				
1228 н	7/8	1.11				
1230 H	15/16	1.29				
1232 H	1"	1.44				
1234 H	1-1/16	1.44				
1234 11	1-1710	* • 44				



No.	1227	Wrenches 1214, 1216, 1218, 1220, 1222 and 1224 in Leatherette case as illustrated	
NO.	1229	10 sizes listed above, in case 8.85	
NO.	1231	All sizes listed above, in case	

### **Diamalloy Thin Wrenches**



One-third thinner—twice as strong. Made of newly developed alloy steel of remarkable strength. Each wrench scleroscope tested. Fit where other wrenches are too large.

No.	Size	Capacity	Thickness	Price
D-74	4"	. 1/2"	5/16"	\$ .90
D-76	6"	3/4"	13/32 "	.90
D-78	8"	15/16"	15/32"	1.10
D-710	10"	11/8"	9/16"	1.40
D-712	12"	15/16"	3/4"	2.00
D-715	15"	111	$\frac{31}{32}$	3,00
D 718	18	$2\frac{1}{16}$	$1\frac{3}{16}$	5.00
D-724	24"	$2\frac{7}{16}$	$1\frac{7}{16}$	7.50

#### DIAMOND FULL POLISHED



Buffed to high polish except on knurled nut and inner web of handle.

A412 A415 A46 A418 Number\_ .... A44 A48 A410 18 Size, inches\_\_ 6 8 10 12 15 1/2 11/8 Capacity, in. 1/2 Price each \$ 0.65 3/4  $\frac{15}{16}$  $1\frac{5}{16}$ 1.50 1 11 16 2 1 16 1.00 .65 .80 2.25 3.25

### Diamond and Diamalloy Parts

Diamond and Diamalloy parts are 100% interchangeable with all standard adjustable Wrenches. In ordering be sure to specify whether Regular or Alloy.



Size	No. 2 Jaw		No. 3 Knurl		No. 4 Pin	
Size	Regular	Alloy	Regular	Alloy	Regular	Alloy
4	\$ .25	\$ .25	\$ .10	\$ .12	\$ .05	\$ .05
6	.25	.25	.10	.12	.05	.05
8	.30	.35	.12	.14	.05	.05
10		.45	.15	.16	.05	.05
12	.60	.70	.25	.26	.10	.10
15	.85		.35		.10	
18	1.15		.55		.10	

#### MOTOR SPECIAL COMBINATION PLIERS



A hand-finished tool made from special steel, drop forged, machined and hardened by special methods to meet the needs of the most particular. Bolt and nut turned from solid bar of steel and case hardened. Knurled handles with screw driver except on 5-inch size.

Double				
Nickel	Size	Capacity	Weight	Price
No.	Inches	Inches	Ounces	Each
K15	. 5	3/4	31/2	.45
K16	6	1	8	.50
K18	8	11/4	10	.65
K110	10	11/2	16	.90
N16	6	Thin Strai	ght Nose	.50

### Masterench with Pipe Jaws



Furnished in five sizes; pipe-jaw only. Full Polished. Ratchets quickly—good for studs, pipe, batteries, conduit—also square and hex nuts and bolts.

Length Overall	Capacity for Pipe	Capacity	Jaws only	Price Each
6" 8" 10"	1/8" to 3/8" 1/4" to 3/4"	5/16" to 11/16" 1/2" to 11/16"	\$ .40 .50	\$1.25 1.60
14" 18"	3/8" to 1" 1/2" to 11/2" 3/4" to 2."	9/16" to 11/4" 7/8" to 11/3/16" 11/8" to 21/2"	.60 1.10 1.40	2.20 3.60 4.95

### Wilde's Super Plier



Drop forged from Chrome Molybdenum Steel and thoroughly heat treated. Jaws are thin and narrow for getting in hard places.

neut	orcavea. outil are th	in and marrow for goo	onig in nara praci
No.	5S—Satin Nickel	Thin Ignition Plier.	Price \$ .78
No.	5N—Full Polished	Than Ignition Pher.	Price96
	6S—Satin Nickel	Battery Plier.	Price
	6N—Full Polished		Price1.17
	7S—Satin Nickel	Battery Plier.	Price96
	7N—Full Polished		Price1.20
No.	8S—Satin Nickel	General Service Plie	Price 1.08
	8N-Full Polished	deneral Service I in	Price 1.32
	10SN-Satin Nickel	Water Pump Plier	Price1.20
No	10N_Full Polished	water rump ruer	· Price1.60

### Pipe Wrenches

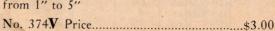


The Hook Jaw is made from a special alloy steel and will not develop a hollow back or break. The heel jaw is likewise made from high grade steels and is easily replaceable.

Length	Jaw Opening	Price Eacn	Length	Jaw Opening	Price Each
6 8 10 14	1 ½ 1 5/8 2 ½ 3	\$ .90 1.02 1.32 1.80	18 24 36 48 60	3 ½ 4 ¼ 5 ½ 6 ½ 8 ½	\$ 2.58 4.47 9.42 14.10 21.15

### **Gland Nut Wrench**

Hand-forged from tool steel. A heavy durable tool. Perfect for gland nuts, manifold nuts, grease retaining nuts, etc. Has jaw spread from 1" to 5"



TWELVE-POINT BOX WRENCHES
Different Openings in Each End



### Long Pattern 15° Offset

	LIUITE	1 440			
Wrench Number	Size of Openings Inches	Length Inches	List Price	USS Bolt Size	Hex Head Cap Screw Size
120 W	3/8 X 78	83/4	\$ .53		3 & 1/4
121W	75 X 1/2	83/4	.56	& 1/4	1/4 & 16
122W	1/2 X 16	91/4	.56	1/4 &	16 & 3/8
123W	78 X 5/8	914	.60		3/8 & 7
124 W	%x16	101/4	.64	& 3/8	76 &
125W	11 x 34	111/4	.72	3/8 &	& 1/2
126AW	The second secon	111/4	.72	& 16	1/2 &
126 W	34 x 18	111/4	.72		1/2 & 16
127W	18 x 7/8	123/4	.84	& 1/2	Pe & %
128W	%x15	123/4	.88	1/2 &	5% &
129 W	15x1	143/4	.96		. & 3/4
164W	₩x11c	1514	1.68	& 5/8	
165W		16	2.00	3/4 &	7/8 & 1
Short	Patter	n 15°	Offset		
100 W	1/4 X 18	3 %	\$0.44	& 1/8	& 1/8
100 AV	9 X 3 2	4	.44		
101W	5 x 3/8	4	.44	1/8 &	1/8 & 18
102 W	3/8 X 18	51/8	.48		16 & 1/4
103W	78 X 1/2	51/4	.51	& 1/4	1/4 & 18
	1/2 X 18	5 %	.51	1/4 &	18 & %
104 W	72X18			0	3/8 & 18
NO THE RESERVE OF THE PARTY OF	72 X 16 9 X 5/8	61/8	.56	0	
104 W 105 W 106 W	A STATE OF THE PARTY OF	6 1/8 6 5/8	.56	& 3/8	78 & 18 178 & & 1/2

### Long Pattern Double Offset

			11	Part of the second	16 19 19
Wrench Number	Size of Openings Inches	Length Inches	List Price	SAE Bolt & Nut Size	Weight Doz. Lbs.
130 W	3/8 X 1/8	81/2	\$0.53	& 1/4	21/4
131 W	16 X 1/2	81/2	.57	1/4 & 16	23/4
132 W	1/2 X 16	9	.57	16 & 3/8	31/2
133 W	9 x 5/8	9	.60	3/8 & 178	33/4
134 W	5% x 11 6	10	.64	78 &	41/2
135W	18 x 3/4	11	.72	& 1/2	51/4
136AW	34 x 3 5	11	.72	1/2 &	6
136 W	34 x 18	11	.72	1/2 &	6
137 W	18 x 7/8	121/2	.85	& 18	7 1/2
138 W	%x18	121/2	.88	16 & 1/8	7 %
139 W	₹x1	141/2	.96	5/8 & tt	9
166 W	15x1 %	15	1.68	5% & 3/4	11
167 W	1%x14	151/2	2.00	& 7/8	13½
Short	Pattern	Double	Offset		
110 W	1/4 x 1/8	31/2	\$0.44		1/2
110 A W	7 32 X32	3 %	.44		3/4
111 W	5 X 3/8	3 %	.44		3/4
112 W	3% X 18	5	.48	& 1/4	11/2
113 W	78 X 1/2	51/8	.51	1/4 & Te	11/2
114W	1/2 X 18	51/2	.51	₹ & 3/8	1%
115W	18 X 1/8	6	.57	3% & 76	21/4
116W	%x11	61/2	.57	₹ &	21/2
117W	18x34	7	.60	& 1/2	3

## THORSEN TOOLS DUPLEX"MINUTE MAN"



DU-20 DUPLEX UNIT

"AN UP TO THE MINUTE OUTFIT"



This is a unit that every mechanic has dreamed of — it's practical, complete and priced within the reach of all mechanics.

The compartment in the Roller Bench will hold the heavy duty tools, electric drill, coveralls etc.

 Chest Size
 24x11x13

 Tray Size
 21x 8x 3½

 Roller Bench
 24x17x22½

 Compartment
 24x17x17

 No. DU-20
 \$29.65

THE DU-20 UNIT IS MADE UP OF THE FOLLOWING

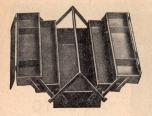
### **DUPLEX ROLLER TRAY**



ROLLER TRAY MADE ESPECIALLY FOR DUPLEX
Box No. 121.
No. RT-21 ROLLER TRAY.....\$1.25

### THORSEN (TT) TOOLS

**DUPLEX AUTO MECHANICS'** TOOL BOX





119		19x8x73/4 21x8x73/4
	7	This box just right



Closes by lifting lightly on handle.

Wt.	Each
15	\$7.00
17	\$7.50
19	\$8.00



116

his box is ist right for the mechanic with a limited number of tools to carry around.

Size

16x8x73/4 9x8x73/4



No.	Size	Wt.	Each
5140	14x8x6	7	\$2.00
517 D	17x8x7	12	\$4.00
521 D	21x8x6	16	\$5.00

### DUPLEX MECHANICS' CHEST



A CHEST OF DURABLE DUPLEX CONSTRUCTION

\$9.80 No. 1220 D Shipping Weight 34 Pounds

20 gauge steel throughout. Drawer partitions are adjustable.

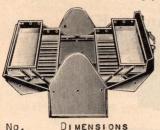
	20 11	0
Chest Size	20 x11 x	9
Tray to cover	19 x 5½x	11/4
Tray in rear	20 x 41/4x	11/4
Top Drawer	153/4×101/2×	2
Bottom Drawer		3
Two Bins (Each)	7½x 6 x	11/2
Space in Rottom for seldom used to		

"MODERNIZE WITH DUPLEX"



ROLL ALL TOOLS RIGHT UP TO THE WORK BEING DONE, SAVE HUNDREDS OF STEPS DAILY. MAY BE LOCKED WITH BAR ABD PADLOCK.

No. 34RC ROLLER CABINET, COMPLETE \$16.65 No.100RC SHEET STEEL ENCLOSURE FOR LOWER PART OF UNIT NO. 34RC.....\$4.00



No. DIMENSIONS 1017 17x8x10" 1021K 21x10x12½

### **Tool Trays**

A HANDY TRAY FOR GARAGE OR TIRE SER VICE, BAKED ENAMEL FINISH, STRONG AND STURDY.

No. 19T DIMENSIONS 19×9~3"

### **Tool Boxes**

A STURBY ALL METAL MECHANICS TOOL BOX BAKED ON ENAMEL & LOCK WITH TWO KEYS

FOUR SWINGING TRAY EXPOSE ALL TOOLS WHEN LIDS ARE OPEN

WEIGHT PRICE 12 LBS \$6.60 17½ " 7.65



WEIGHT 5 LBS

PRICE \$1.65

### **Machinist's Chest**

TILL & DRAWERS ARE CLOTH LINED. SUPER COMPOUND SLIDES ON DRAWERS CONTROL ACTION PERFECTLY. FITTINGS AND LOCK ARE PLATED AND POLISH ED. FINISH RIPPLE SEAL BROWN BAKED ENAMEL.

DIMENSIONS: 20x81/2x13" WEIGHT 27 LBS. No. 520K CHEST \$15.75



### NEW!

KENNEDY
ALL STEEL
GARAGE
KITS

RED OR BROWN RIPPLE BAKED ENAMEL FINISH

NEW MODEL TOOL CHEST DESIGNED ESPECIALLY FOR THE MECHANIC THAT WANTS PLENTY OF ROOM AND ACCESSIBILITY.

DIMENSIONS, LONG WIDE HIGH

CHEST 27x12½x14¾ TILL 26¾x12x4-5/8

TRAY 14x6x2

DRAWER 244x12x12 TOP
DRAWER 244x12x2 MIDDLE
DRAWER 244x12x34 BOTTOM

No. 27 Tool CHEST .....\$16.25

### Mechanic's Kit



### GARAGE KIT

No. 20GK
Equipped with Tote Tray.
Size
20-in. x 10-in. x 13-in.
14½ lbs.

Net Price \$6.45



CS14 has dark green ripple finish, cadmium plated lock and side catches. R14 is a competitive priced box of same dimensions as No. CS14 but with loose tray, without side catches, and finished in plain green enamel. Has heavy wire handle while CS14 has all steel handle.

S19 is same as CS19 in every respect except that it has a short, loose trav

Cadmium plated fittings, double seamed ends, full length piano (continuous) hinge, and corner irons feature this solidly constructed box. Marproof green baked ripple enamel finish. CS19 has cantilever swing tray.

No.	Long Wide High	Net Pric
CS19	19 x 7 x 7"	\$2.85
S19	19 x 7 x 7"	2.55
CS14	14x61/8x61/4"	\$1.25
R14	14x61/8x61/4"	.90

### THORSEN (T) TOOLS ELECTRIC SOLDERING IRONS



No. 6100-1 — 100 watt......\$2.00

Supplied with standard tip only. Length overall '131/4"
Nickel Plated Reinforced Steel Tube. "5 ft. H. S. J. Rubber Cord and Plug. A heavy duty iron for average work.



No. 675-1 — 75 watt.....

Supplied with standard tip only. Length overall 12½"
Nickel Plated Reinforced Steel Tube. 5 ft. 3000 Cycle Cord with Rubber Plug A medium weight iron for general repair work.



No. 655-1 — 55 watt.......\$1.00 Length overall (with standard tip) 11" supplied with 5 ft. Unapproved cotton cord. Nickel Plated Steel Tube. An excellent iron for all light repair work.



THIS ILLUSTRATION SHOWS THE NEW NO. 134RC ROLLER TOOL CABINET. SAME DIMENSIONS AS THE NOT 34RC SHOWN ON PRECEEDING PAGE. THE DIFFERENCE BETWEEN THE NO. 34RC AND No. 134RC IS THE ENCLOSED LOWER PART . NOTE LOCKING BAR CONTROLS BOTH TOP AND BOTTOM SECTIONS. No. 134RC ROLLER TOOL CABINET .... \$20.65



UNIFORMLY TIGHTENS
ALL CYLINDER HEAD STUDS

Eliminates distortion, gasket failure, bearing trouble and loss of power. Definitely improves compression, oil and gas mileage.

No guesswork . . . Tension is accurately indicated to mechanic when tightening or loosening head bolts. Equally effective for uniformly tightening main bearing caps, manifold and axle nuts.

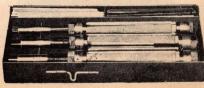
Provides uniform compression required to assure maximum performance of car or truck motors.

A boon to Car Dealers making 500 and 1,000 mile service inspection. Also has many industrial uses. Shipping Weight—61/4 lbs.

Method approved and recommended by Car Manufacturers—Jobbers—Engine Rebuilders... Also by makers of Pistons, Pins, Rings, Bearings, Cylinder Heads, Gaskets, etc.

## Ideal for Uniformly Tightening Main Bearing Caps

**Bushing Honing Set** 



Can be operated efficiently either by hand or on power drive of 50 to 150 R.P.M.

No. B200—Hone Set, complete with steel burnishers, three hones, nine extra abrasives. Price	11.90
No. B201—Extra Abrasives. Price per dozen	1.00
No. B202—Set of three burnishers. Per set	2.65
No. B205—Individual hone, 3/4" to 7/8". Each	3.25
No. B206—Individual hone, 7/8" to 1". Each	3.50
No. B207—Individual hone, .990" to 1 115". Each	3.75

### TAPE RULES No. 306 M

INSIDE MEASURE



- Nickel Plated Zinc Case=Rustproof.
   Smooth Case Design=No projections.
   Close fitting case=Excludes dirt.
   Easy to read=Confident accuracy.
   Sets up firmly on base=Quick handling.
   Free pull-push action=No jamming.

NEW PUSH BUTTON PRECISION LOCK "It Clicks"

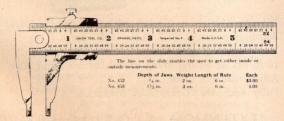
No. 306A 6' GRAD. 1 SIDE, BOTH EDGE No. 306D 6' GRAD. BOTH SIDES & EDGE No. 308M 8' GRAD. 1 SIDE, BOTH EDGE No. 306M 6' WITHOUT LOCK \$1.25 1.50

25 Tempered 3 64 8 16 24 32 40 48 56 | 8 16 24 32 40 48 56 | 8 16 24 32 40 48 56 

No. 400B EZ READ 6" STIFF RULE .... \$0.50

82 P2 02 9T 2T 8 7 82 P2 02 9T 2T 8 7 82 P2 02 9T 2T 8 7 84 P2 02 9T 2T 8 P2 02 9T 2T 8 9 P2 02 9T 2T 8 9

No. 4208 EZ READ 6" FLEXIBLE RULE. \$0.50 POCKET CLIPS FOR NO. 4208, EA.... 15

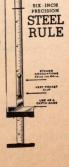


No.452 6" SLIDE CALIPER, 5/8" DEPTH \$3.35 No.453 6" SLIDE CALIPER, 12" DEPTH 4.35

Steel Rule Steel Rule with Pocket Clip and Depth Gauge Length 6", width 1/4". Graduated in 32nds Exactly as illustrated.

RANGE		
NF or SAE	Standard Pipe Thrds.	
1/4"-28	1/8"-27	
5/16"-24	14"-18	
3/8"- 24	3/8"-18	
7/16"-20	1/2"- 14	
1/2"- 20	3/4"-14	
9/16"-18	7/8"_111/2	
5/8"-18	1"-11%	
34"-16	11/4"-111/2	
7/8"_ 14	11/2"_11/2	
1"-14	2"-111/2	





### 1/2 H.P. 7" HD Bench Grinder

Capacitor Start-Capacitor Run



110 v. 60 cy.

3450 R.P.M.

No. KC 7
7-inch Bench Grinder,
Price.....\$39.50

### Specifications

Wheels 7" dia. x 1" thick 5%" spindle bore.

Shaft 1" dia. through core 34" through bearings.

Ten ampere "On" and "Off" switch.

10 ft. No. 16 SJ approved all rubber cord and plug.

Two-way adjustable tool rests.

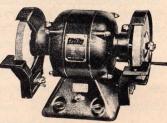
Fully enclosed—continuous operation.

### 1/3 H.P. Bench Grinder

110 v. 60 cy. 3400 R.P.M.,

No. KC6

6-inch Bench Grinder,
Price......\$24.00



Wheels 6" diameter x 34" thick, ½" spindle base. Bearings oversize, SKF FL15—.590" bore. Ten ampere Heavy Duty "On and Off" Switch. 10 ft. No. 16 SJ approved all rubber cord and plug. Adjustable tool rests.

Fully enclosed. Continuous operation.

### EXTENSION SPOTLIGHTS



A HANDY LAMP IN ANYBODYS SHOP. CLAMPS IN A NUMBER OF POSITIONS LETTING THE LIGHT FOCUS ON THE WORK.

No. 1525 CLAMP SPOTLITE, 25 FT CORD \$2.50 No. 1550 CLAMP SPOTLITE, 50 FT CORD \$3.25

### Reid Piston Expanders SIMPLE - QUICK - PERMANENT ENGINEERED



### TO FIND CORRECT SIZE EXPANDER

Measure distance between piston struts, then sel ect an expander that is approximately 1/8" longer than the measurement obtained. If this rule is fol lowed the expander will develop the correct spring tension to permanently stabilize the pistonskirt and stop piston slap.

CAN BE INSTALLED WITHOUT REMOVING

### PERFECT SKIRT RESILIENCY WAS FLEX **FLEXIBILITY**

Not affected by motor heat. No noticeable weight added to piston. Spring pressure applied up near wrist pin. introduces no excessive wear or piston drag. No drilling or cutting of pistons before installation. When once set in correct position the Expander cannot

come out except by forcible removal.



List Price

NO. 5 FOR V8-85 FORD

> No. 10 FOR MOD. A FORD



## Reid FLAT PLATE TYPE Piston Expanders SIMPLE TO INSTALL

Alloy Piston between aluminum struts Narrow Steel Strut Piston between steel struts



INSERTION PLIERS FOR FLAT PLATE TYPE EX-PANDERS, (SHOWN ABOVE) EACH NET. .... \$0.30

## Reid "Butterfly" List Price Piston Expanders 500



Packaged in sets of four, and eight expanders for Model A Ford, V-8 Ford, FORD V8 PISTONS use No. 5 Expanders.

FORD MODEL A PISTONS use No. 10 Expanders
The compound action — steel cushion presses
against the split skirt and produces a NEW
SMOOTHNESS OF MOTOR OPERATION.
Adds no noticeable weight to pistons — effects
a greater range of expansion — the tighter the
expander is pressed against the skirt wall, the
more expansion obtained

INSTRUCTIONS IN EVERY PACKAGE

	Alph	abe	tic	al I	nde	X	141
A A A	BRASIV DAPTOR	E VALVE S, SOCE ZLE	SEAT	A Cutt	ERS .		59
	BATTERY BENDER, BOXES, BOX WRE BRAKE B BRAKE C BRAKE G BRAKE L BRUSHES BRUSHES	SERVIC STRAPS TUBE TOOL NCHES LEEDER LAMP, PAUGE INING CO. , ACID , CARBO , DISTE , SCRAT , WIRE	SLAMPS OUNTE	ZLIC	E	13	
	BUSHING BUSHING CALIPER CARBON CHEVROL CHISELS CLAMPS, CLEANER CLEANER	DRIVER HONING S CLEANIN ET TOOL AND PO BRAKE HYDRAUM S, COME S, GUIE S, RING	S SETS	C C JSHES S	23,24	, 12 , 25, 10 . 33,	
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